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F r o m t h e W o r k s o f J O H N B R O W N, M. D.
L E C T U R E R O N M E D I C I N E, A N D P R E S I D E N T O F T H E R O Y A L M E D I C A L
S O C I E T Y, I N E D I N B U R G H, &c.

B y F R A N C I S C A R T E R, M. D.

V O L. II.

L O N D O N :

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THE
VARIOUS SYSTEMS
OF
MEDICINE.

On EXCITABILITY.

CONCERNING the nature of *excitability*, or how it is affected by the exciting powers, we are entirely ignorant. Be it what it will, some of it, or some force of it, is given to every one at the same instant with life. If we consider the power or abundance of it, when given, in some animals and different in others, the question becomes quite of another nature. Partly on account of the uncertain nature of the thing, and partly for want of common language and the novelty also of this doctrine, of which we shall treat afterwards in different places, one is the reason why the *excitability* should abound

when little stimulus is applied, and how the same *excitability* should be deficient, exhausted, and consumed, after the same stimulus is applied with too great vehemence, or otherwise. But let us here, as well as in other places, stand firm to truth. The deceitful question concerning causes, being almost incomprehensible, that venom-ed snake of *Philosophy* must be cautiously shunned and avoided. Let no one therefore pry into the nature of the *excitability*, from what has been lately said, whether it be matter or not, and thus may be either encreased or diminished ; or whether it should be defined a modification of matter, which at one time is in its bloom and vigour, at another, diminished and decayed ; nor will even this hidden question be come at, or interpreted, which has always almost been done to the greatest detriment of science.

As some *excitability*, however small, is necessary for a living system, nor can the action of exciting powers either in a stronger or weaker degree be ever wanting,

ing, consistent with life ; in all these exciting powers, therefore, either a greater or less, a too much or deficient, or an adequate force, must be conceived to exist.

Superfluity of blood is too great a stimulus, and for that reason excites diseases that have a too great stimulus for their cause ; yet the want of blood, altho' it debilitates, and brings on disorders consisting in debility, must be understood to stimulate, but only in proportion to the scarcity of it. This doctrine is supported from the effects of the operation of all the other exciting powers ; unless poisons, perhaps and contagions may seem to merit an exception. But poisons either do not give rise to common diseases, of which we are here treating, or if they do, it is by the same mode of operation, by which the other exciting powers act.

Some diseases, consisting in too great a stimulus or in too great debility, are the result of contagions. Both of which diseases, as not only contagions, but other common

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poisons operating as stimulants may create, I say; since the effects of both are the same, they must both have the same mode of operation. Moreover, that contagions are stronger than the more known poisons, will be afterwards demonstrated. To this we may add that no remedies remove diseases, brought on by contagions, besides those which cure diseases, depending on the operation of the common noxious powers. In fine, the great *debilitating* power, in some contagions, does not prove a different mode of operation, more than an equal or greater *debility*, arising from different degrees of cold, proves it not always to be a debilitant.

Since the common powers alone, produce every thing necessary for life, and their operation alone is stimulant; therefore all necessities of life, whether they procure good or bad health, consist in a stimulus and in nothing else.

Excitement, the effect of the powers which are the cause of life, may arise to
such

such bounds as to destroy it ; when raised to a proper degree, produces good health ; if carried higher, propensity to diseases, or such themselves ; if the same powers are applied in too low a degree, diseases consisting in debility will be the consequence also.

The nature of this *excitability* and *excitement* is such, that the weaker the powers have operated, or the less the stimulus has been, the more the *excitability* is redundant ; and the more the stimuli have been applied, the more exhausted will be the *excitability* ; the stimulus applied to the former, will produce great *excitement*, but if to the latter, the contrary must take place. To illustrate this, a boy or a sober man, by a small stimulus, unaccustomed to such, soon obtains as great an *excitement*, as they can well bear. Grown up men as well as drunkards are examples of this also. All the powers have the same effect, causing little *excitement* in the former case, and a great deal in the latter.

As

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As *excitement* arises from the stimulus of exciting powers, accompanied with *excitability*, so the proportion is found betwixt the stimulus and *excitability*; the middle stimulus, affecting the middle or half consumed *excitability*, causes the greatest *excitement*; which *excitement* decreases, in proportion to the magnitude of the stimulus, or in proportion to the augmentation of the *excitability*, more than what is sufficient. Hence follows the vigour of youth, and the weakness of childhood, and old age. Hence arises that vigour, from proper application of the necessaries of life, to people who have lived too low.

The truth of this is so clear, that each age has its peculiar state of power, and each state its peculiar degree of vigour; also in child-hood, on account of the *excitability* being great, in order to preserve health, a small degree of stimuli are necessary; but if too little be applied, it becomes languid and falls away; or if too much are applied, it becomes weary, fatigued,

fatigued, &c. and in the end is quite overcome. Old age, and that infirmity concomitant with it, arises from a deficiency of *excitability*, and requires a degree of stimuli proportionate to the deficiency, &c. if applied too sparingly, life languishes; and if in too great quantity, it is quite overcome. Hence the more copious the *excitability*, the easier it is fatiated, or the less stimulus it can bear. On the contrary, the more the *excitability* is worn, the more stimuli it admits of, until at last, when it is almost intirely worn out, the least stimulus must necessarily extinguish the fire of life.

But there are certain limits within which these come to pass. Thus, as has been said, life is terminated two ways; the one of which is by exhausted *excitability*, which may be effected by the force of violent stimuli, a short time continued, or by more moderate stimulants a long time applied. Both cases tend to the same end; since the greatness of the stimulus compensates

penfates for its fhort duration, and the long continuance corresponds to its mediocrity. Sudden death is a confequence of the former, if the fyftem is predifpofed to difeafe particularly, but the latter affects the fame more flowly; and altho', even the moft proper meafure of *excitement* fhould be kept up, yet death at laft, tho' later muft inevitably be the confequence.

Any one power is capable of affecting this; but by the application of more of the powers, &c. the end will fooner be accomplished.

Drunkenefs, or its attendants, fwearing, langour, heat, either alone, or fucceeding, cold, lownefs of mind, after deep thought, or violent exertions of the mental faculties, and in fine fleep; I fay, all thefe are the refult of too great ftimuli, which exhaust the *excitability*. The weaknefs concomitant to old age, and the danger of difeafes of this fort, together with the very difeafes themfelves always
are

are the consequence of the application of exciting powers in different degrees ; and the consequence is death either way. A stimulus long applied, often loses its effect ; in which case, a fresh one answers the end for *excitement*. Thus, strong liquor induces sleep, after a hearty dinner, very often ; or produces the same effect after fatigue, either of body or mind ; but a still higher stimulus will remove the effect, as opium, &c. and if in this condition, a beloved object should retire, and there is any tolerable hopes of regaining her, the consequence will be the removal of the effects, produced by the former stimulus. A friend will often rouse us by some agreeable discourse, or the reverse.

To repair the *excitability*, long operated upon by various stimuli, is an affair very arduous to undertake, because the more they have had recourse to such, the less effect can be produced by new ones, by the operation of which the languishing *excitement* should be roused up ; and as the *excitability* exhausted by one stimulus,

by wine for example, may destroy life, with more certainty, will the too great application of a greater number produce the same effect.

Which case is the more dangerous, because the loss of that *excitability*, after it has attained a certain degree, is at last irreparable; and nothing equal to it now remains, to produce proper excitement, except the very things which produce the disease, viz. powerful stimulus.

In fine, such is the nature of this loss, that unless some proper application be made for the preservation of life, and such as is suitable to nature, death will immediately be the consequence. The difficulty of curing drunkards, gluttons, and those labouring under diseases arising from similar effects, are sufficient proofs of the reality of what has been now advanced.

Thus, *excitability* impaired by stimuli, induces that degree of weakness which is properly

properly called *indirect debility*, which is not the consequence of a deficiency of stimuli, but of too great a quantity of the same. In the whole progress to *indirect debility*, the first effect of each stimulus is greater than the next following, and this diminution is regular in retrogradation, until no force of stimuli will produce any effect.

The second condition, finishing *excitement*, is the exciting powers applied in too low a degree, and therefore not adequate to produce sufficient *excitement*; which case, as it arises from a deficiency of stimuli, and a superfluity of *excitability*, must be distinguished, for the sake of utility, from the other case, where there is laid before you the deficiency of *excitability*, by the force of the stimulus applied to the system. All the stimuli may be so deficiently applied as to bring on this state, which is denominated *direct debility*. They all, therefore, tend to confirm and illustrate this proportion.

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Here the *excitability* abounds, and because the stimuli are withdrawn it is not exhausted. Thus in a cold bath, by a deficiency in point of heat, and therefore in the sum of the whole stimuli, the excitement is lessened, and the *excitability*, as not being operated on by the stimulus, encreases. The same is evident in ill fed people, and water drinkers, and in the infirm, the thoughtless and indolent.

As the *excitement* decreases in proportion as the *excitability* encreases, so it may be carried to such a pitch as to produce death, of which, cold, hunger, loss of fluids, a sedentary life, grief and anxiety of mind, all bear testimony. But if cold sometimes seems to stimulate, it does not so merely as a stimulus, but either by diminishing too great heat, and reducing it to a proper standard, or by opening a free communication for the air to the system, or by relieving the *excitability*, acted on too much by a too great stimulus. In like manner, if the affections just mentioned

oned assist the operation of the other exciting powers, they effect this by a similar mode of operation.

One stimulus often compensates for the want of another, and in proportion to the magnitude of the *excitability*, &c. and will answer its end; thus joyful news and chearful company helps to support those that are poorly fed; a draught of good liquor lulls the unexercised, either in body or mind; and opium in case of necessity will effect the same. *Bacchus* is useful in the absence of *Venus*, and *vice versa*; either of these supplying the place of the other, and thus driving away dullness. The same is evident, in the use of those stimuli, desired more through custom than nature; thus the want of snuff is supplied by chewing tobacco; and the latter by the same vegetable converted into smoak.

Moreover, some functions may be so impaired for a time, as to prevent a flow
of

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of some accustomed natural stimulus; when others less natural, &c. being substituted, keep up life, till such time as the functions are restored, and the more natural stimuli brought back, accompanied with health, and vigour of body and mind. As too great *excitability*, the consequence of too little application of a stimulus, may be diminished throughout all its degrees, as it were, by one stimulus, &c. from the least to its greatest extent, and thus danger guarded against, until it be brought to that state which constitutes sound health; so the more the *excitability* abounds; that is, the less it is acted on by stimuli, the less must the stimulus be at first applied; and the *excitability* may arrive at such a height, as to admit of no stimulus, and consequently no *excitement* can be kept up.

The use of any debilitating power, both illustrates and confirms this, as may be seen in the examples of cold, hunger, thirst, and also in *Fevers*.

This

This superabundant *excitability* passes so precipitately on to death, that the only method of guarding against such a consequence, or supporting life, is to attack its progress, first by a very little stimulus, not much greater than that which was the cause of it; then, after having lessened part of its superfluity, we may use a little stronger; and, in proportion as it is diminished, to proceed with a stronger still; and that whatever is superfluous may be removed, until we obtain that state of mediocrity, which constitutes health, which state is diametrically opposite, either to that debility, arising from the *excitability* being worn out, or to the state that arises from too redundant *excitability*, being a middle state between too extremes. Thus, the famished are not to be recovered by a full diet at first, nor the long thirsty by too much drink given immediately, but by little and little, and encreased by degrees. A person stiff with cold, is to be warmed by the same rules. Joyful tidings are only to be made known

known gradually to the heart broken. The loss of the battle of Cannæ, was told to the matrons by those who escaped, first, as a doubtful report, then as a little more certain; but at last, as surpassing all doubt, were told the whole event, after they had been strengthened by stimulants, and refreshed with Falernian wine. More stimulus should be used in the beginning, than at the end, in *Fevers* of the lower kind than in the higher, and in diseases of weakness than in *Fevers*; but we must begin and continue on as we have here already mentioned.

For since all life consists in a stimulus, and as either the superabundance or scarcity of it, gives rise to diseases, and that in proportion to such; thus the remedies of both are to be proportioned to such, and a great force of stimuli is to be applied to the great defect of *excitability*, and such a proportion to the superabundant *excitability*, as may reduce it to the standard of health.

Debility,

Debility, arising from the defect of stimulants, is called *direct*, because it is the consequence of the application of the necessaries of life, in too small a degree.

During the whole course of *direct debility*, by diminishing the stimulus, at last the *excitability* will be so increased as to admit of no *excitement*. Which, therefore, should never be so treated, or death must be the consequence, nor should we ever add a *direct* disease to an indirect, or increase any species of debility, from a vain hope of advantage, derived from the application of an unaccustomed stimulus.

OF THE

PHLOGISTIC DIATHESIS.

OF all the powers which tend to create either a Phlogistic Diathesis, predisposition to Phlogistic Disease, or the diseases themselves, heat is one of the greatest. Thus that very same power, the most necessary to the growth, existence, and well being of animals and vegetables, under certain circumstances, becomes the most hurtful. Applied in a moderate degree, proper *excitement* will be the consequence; in a higher degree a Phlogistic Diathesis, predisposition to disease, or disease must take place; but if in a violent measure, that disorder will follow that is denominated indirect debility.

Heat,

Heat, acting on a living system; is generally applied more to the surface than the inward parts; hence its operation is to excite the extreme vessels, so as to diminish their diameters, which it often does to such a degree, as to almost close them up, and prevent perspiration, which greatly increases the disorder: Hence in the measles and small pox, the irritating matter is retained, &c. which greatly increases the *excitement*, in the surface. This power is equally hurtful in all Phlogistic diseases.

As cold can constrict the particles of a living animal, after the same manner that it does inanimate matter; so this constriction, because the degree of cold which is adequate to affect it, cannot be long supported by a living system, cannot increase; I say, that constriction cannot increase by length of time, or continue, after the cause is removed, without destroying life.

The perspiration suppressed in Phlogistic diseases, and the symptoms attending this obstructed perspiration, which are commonly supposed to proceed from spasm, or cold acting by constriction, are nothing else than the common Diathesis increased in the skin.

The stimulus of heat, and the other exciting powers, act more powerfully after the operation of cold, for reasons to be mentioned.*

The *debilitating* effect of cold is so increased by moisture, as to prove often noxious, and always threatens to be so, if its effects are not properly and speedily obviated; but always is hurtful in a Phlogistic Diathesis, by increasing the effect of the succeeding stimuli; and in the contrary Diathesis, it injures by continuing its *debilitating* power. The only sort of food which is in danger of stimulating too much, is flesh meat and all kind of aliment prepared from such animal food,
as

as also meat too salt and too hard, especially when it tends to a state of putrefaction. This stimulus, which reaches the whole system, is therefore called a diffusible one, so, it operates on the stomach, somewhat more than on any other equal part of the body. Condiments have the same efficacy, a small portion of which on account of their violent power of stimulating, will be sufficient.

Spirituous and vinous liquors, in which there exists alkahol, diluted, stimulate sooner, and their operation is of shorter duration, than victuals prepared with condiments; and that, in proportion to the quantity of alkahol they contain. All these different kinds of food possess a diffusible, and consequently a direct stimulus. A stimulus is called direct, because it forthwith operates on the *excitability* of the part to which it is applied. Another kind of stimulus, depending on the moderate distention of muscular fibres, co-operates with a direct stimulus, at least,

least, as far as it regards victuals, and is consequently called an *indirect* stimulus.

The bulk alone of animal and vegetable food, the indirect stimulus of which latter is feeble, affords this *indirect* stimulus.

Good and abundant chyle, and blood, made of animal food, is a further stimulus; by this stimulus the *excitement* every where is increased, and more than any other equal part in the blood vessels, and, that in proportion to the abundance of blood. The nature or quality of the blood avails nothing, at least as a cause, its efficacy is owing only to its abundance, which acts with a constant impetus, distending the muscular fibres of the vessels.

The very celebrated plethora of physicians, corresponds with the Phlogistic Diathesis, and is proportioned to its magnitude. Does this stimulating effect increase by the velocity of the blood, and consequently by muscular motion, which
increases

increases the return of the blood too speedily to the heart, in consequence of compressing the veins? Nothing is more sufficient to bring on a Phlogistic Diathesis, and Phlogistic diseases, than this stimulus, which diseases are the more violent, the more abundant the blood is, and the more rapid its motion. This is further proved by all the symptoms attending these diseases, particularly by the pulsation of the arteries. This is also further proved by venesection, purging, and abstinence from food, which remedies are more than effectual to re-establish health here, and so manifestly hurtful in diseases of a different indication.

The other fluids secreted from the blood, are considered as stimulants also, each distending their vessels in different degrees, for which purpose milk and semen, both being abundant in their respective vessels, and in like manner, the perspirable fluids are very effectual. A commotion of a secreting organ, caused by the *excitability*,
which

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which is one and the same indivisible property all over the system, is easily diffused throughout the body; when it is too great, and particularly when conjoined with other highly exciting powers, is adequate to the production of a Phlogistic Diathesis.

Intense thinking, operating on the organ to which it is directly applied, more than on any other equal part, increases the *excitement* all over the system. An exertion of the same faculty, whether very great, but for a short time, or in a lower degree, but often repeated and habituated, even alone, can be hurtful, and when conjoined with other *exciting* powers that are noxious, from the greatness of their stimulus, may be more so, and sufficient to produce a Phlogistic Diathesis. That degree of thought which wears out the *excitability*, as being purely an *indirect debilitant*, is excepted in this place.

Violent

Violent passions of the mind, such as great rage, violent resentment, immoderate joy, which arrive not at that magnitude, as to wear out the *excitability*, tend to the same that the exertion of thinking does, and admits of the same explanation.

Hereafter mention will be made of air, as a stimulus, without considering temperature; when, treating of particular noxious powers, such as contagion.

From the operation of any one of these powers, a Phlogistic Diathesis, predisposition to disease, or disease itself, may take place; but such effects are mostly the consequence of all or many of such powers conjoined, and do not proceed from any power implanted in the system.

In producing this Phlogistic Diathesis an inflammation of a particular part, in such as are not predisposed, is insufficient for these reasons, because such an inflam-

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mation happens very often without a general Diathesis, because in diseases which are always attended with general inflammation, a local inflammation follows the Diathesis, and follows a Pyrexia itself generally, and never precedes it; and because those diseases, whose Pyrexia depends on an inflammation of the part, by the removal of such a partial inflammation; these Diseases are removed, and the remedies which remove a Phlogistic Diathesis, seldom do any good in this case.

Also, because whenever a partial inflammation seems to constitute a Phlogistic disease, that inflammation produces evidently different diseases in people of different constitutions, or in the same person at different times. In order that you may the better understand that the event is directed by the Diathesis, and that the Diathesis does not proceed from the inflammation of the part; and because, in some cases, where a shadow of a Phlogistic disease appears, that inflammation, which is
commonly

commonly considered as the cause of the Disease, and was supposed itself a symptom of a different affection, and lastly, because a supposition of the diseases, proceeding from inflammation, falsely supposes predisposition not necessary for producing the Disease.

Stimulants, acrid substances, and compression, acting on a part, and injuring it, are not to be ranked among general powers creating a Phlogistic Diathesis; for if people fall into this Diathesis, it causes a Disease, if not, the affection is not a Phlogistic one, but only an appearance of such, differing in cause, symptoms, and cure; nor is there any regard to be paid to these local affections, in disorders of this kind, than as far as they should be understood to be hurtful, when conjoined with a Phlogistic Diathesis, and are to be removed consequently as much as in our power; but their effects are never to be confounded with the effects of a general *excitement*, constituting Phlogistic

D 2

gistic Diseases, which notwithstanding is the general opinion. Of these stimuli, compression is to be rejected on another account, because it is a symptom of a different disease, whether common or local, and takes place, as well in every Diathesis, as when there is none at all.

Thus, then, the cause of a Phlogistic Diathesis, proceeds from the operation of the powers mentioned; whereupon too great an *excitement* of the living system takes place; first increasing all the actions, afterwards disturbing some, and diminishing others, by inducing debility, but never as long as the *excitement* continues. The origin of all Phlogistic Diseases, therefore, is the same, and no other.

Before the disturbance of the functions, which never takes place until a proper disorder is formed, and then even, only in its greater violence, all the senses, all the motions, both voluntary and involuntary,
are

are stronger, the genius more acute, the sensibility and affections greater. The heart and arteries are proved to acquire vigour by their increased pulsations; the extreme vessels of the body are proved to acquire vigour by their heat, all the muscles by their increased strength; the internal secretions, by an abundance of milk and semen; the digestive organs by a desire for victuals and by the force of the powers of digestion, vigour of body, and an evident redundancy of blood, all which tend to prove the same. How much the faculties of the mind and passions are increased in vigour, we learn by comparing them, in this Diathesis, with themselves in sound health, and also in the second species of Diseases, and the predisposition to the species. Thus all the actions are first increased.

The disturbance of which actions, during the continuance of too great *excitement*, does not appear much in this state of the Disease, clearly to point out the
state

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state of vigour then present in the constitution, so that you cannot clearly observe the mark of too much vigour.

The cause, disturbing the actions, is a Diathesis raised too high or too great *excitement* all over the body; whence it comes to pass, that in the progress of the disease, many marks of *indirect* debility, which belong to another place, appear. In like manner, the same *excitement* violently assaulting any part necessary for life, or highly excitable, is connected with the general *excitement* of the whole body, necessarily, and not the latter with the former.

The debilitating state of these diseases, consists in such an increase of the Diathesis as produces horror, languor, and lassitude, by checking the perspiration, and lessening the action of the stomach, or otherwise injuring it, by exciting too much its muscular fibres, as shall be mentioned in full - in its proper place.

Inasmuch

Inasmuch as these effects proceed from too great *excitement* and are removed by debilitating powers, consequently not debility but an *excitement*, greater than is necessary for performing the proper actions, is considered as the cause of these effects.

The exciting powers create and increase *excitement* all over the body, because *excitability* is one indivisible quality throughout, and whenever affected, is every where acted on. Again, these affect any one part more than any other equal part, because they directly operate on the part, each on different parts. As far as the same powers do not diminish the force of the actions, they do it, because they stimulate directly, and too highly, nor carry on the stimulus to that magnitude which becomes an *indirect debilitating* noxious power. They diminish tonic actions, such as of the stomach, muscles, and brain, for a short time; on this account, because a very high stimulating power is improper for the
perfect

perfect functions of these organs. Take care not to think that this diminution proceeds from a deficiency of stimulus, and distinguish it from dyspeptic symptoms of long standing, evidently arising from a debilitated source, conjoined with a concurrence of symptoms of the same indication, and which are to be removed by stimulating powers.

EXCITEMENT, affecting the brain or lungs, and disturbing their actions, arises on this account, because the stimulus of the distending blood is there more acute, and there, finding a greater *excitability* than in any other part, increases to a higher degree the effect of both, viz. *excitement* hurts these organs, and comes near to such a state of the part at last, as that its *excitability* may be intirely worn out.

Obstructed perspiration causes horror and a sense of cold; but obstructed perspiration itself is caused by a Phlogistic
Diathefis,

Diatheſis, highly increaſed on the extreme veſſels. The Diatheſis is more exquisite on the external than internal parts, becauſe the operation of extraordinary heat alone is more powerful, on the ſurface of which it is directly applied, than in the internal parts, or becauſe the operation is increaſed, in conſequence of the preceding cold permitting the *excitability* to be more highly increaſed there, than in the internal parts. That this is not to be attributed to ſpaſm or the aſtringent operation of cold, we learn from the effects of the ſame highly exciting powers cauſing all the other ſymptoms as well as theſe, and alſo from the ſame remedies which remove this ſymptom, as well as every other part of the diſeaſe.

Symptoms of *debility* follow a vehement Diatheſis in proper Phlogiſtic diſeaſes, becauſe the continuance of *excitement* increaſed, but not ſo much as immediately to bring on *indirect debility*, tends to the ſame and produces the ſame effect. That this

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does not happen, within the limits of Phlogistic predisposition, and in slighter Phlogistic diseases, we are assured from this, that here there are no evident symptoms of *debility* &c.

An *excitement* violently affecting a part often changes the form and texture of it as an organ.

The same *excitement*, on account of its extreme magnitude, changing into diminished *excitement*, or no *excitement* in the end, injures the part as an organ, but otherwise it is still considered as a living solid. The terminations of inflammation prove both circumstances, to wit, suppuration proves the former, and effusion, gangrene, and chronic or lingering inflammation, the latter. These local injuries arising from general Phlogistic diseases, are to be prevented by the physician, or if this prevention be not accomplished, are to be remedied as much as in his power.

Inflammation

Inflammation attending or following Phlogistic diseases, affects generally the exterior parts of the body, because heat *directly* stimulating or cold permitting the *excitability* to increase, and thus increasing the effect of heat, and other stimuli, operate with the greatest force on the surface and by suppressing the perspiration increases the Phlogistic Diathesis, in the adjacent parts. For inflammation here is nothing else than an increased condition of the part inflamed, in common with the rest of the body. Which inflammation as it is constituted by an increased *excitement* in one part, more than in any other equal part, so, before a proper disease takes place, a part or a symptom of which is inflammation, the *excitement* of that part is understood to be proportionably greater than the *excitement* of any other equal part.

Effusion, which is very often a consequence following Phlogistic diseases, is either sanguiferous or serous, and depends

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on the extreme *excitement* of the vessels, of the part wearing out the *excitability* therein, which then ceasing and permitting the muscular fibres like the simple solids, to be relaxed and the diameters of the vessels to be enlarged: hence an effusion of the fluids without a *vi a tergo*.

The same termination of *excitement* takes place in gangrene, and proceeds from the same cause and is attended with a similar relaxation of the fibres, permitting the fluids to rest, stagnate, and corrupt within, as well as without the affected vessels, which terminates in a destruction of the texture and in a mortification of the part,

Distention, less than is sufficient to produce effusion or gangrene, but still so great that the vessels may receive a greater than their usual quantity of blood, in consequence of the application of a slight stimulating cause, such as increased heat, or motion of the vessels, and thus to retain the blood, when taken in, and
thence

thence bring a lingering affection, I say, such a distention causes a slow inflammation of the vessels labouring under an acute disease.

As these effects or terminations of the cause of Phlogistic disease are only occasionally mentioned in this place, because they happen as effects occasioned by these diseases; so their explanation, which is different from the common Phlogistic doctrine, belongs to another place. In relating which briefly here, we have studied advantage more than order.

Although the muscular fibres of the vessels are by so much the more powerfully contracted in proportion to the quantity of circulating blood, which distends them, and from thence the Phlogistic Diathesis, of all the other vessels of the body as well as of those immediately inflamed undoubtedly proceeds, nevertheless, there is need of the support of the simple solids necessary to produce that effect

effect, whether we consider the very muscular fibres themselves, as simple solids, or whether the other fibres, altogether destitute of *excitability*, be considered as such, which support them, except in one character of diseases.

This character is that, wherein, while all other circumstances, which constitute a Phlogistic Diathesis, is suitable to the bulk of the simple solids, yet the cohesion of the particles are somewhat different. Hence while the blood as in other diseases abounds, and by this abundance distends, and in consequence of this distention stimulates, and by that stimulus the muscular fibres, are contracted, nevertheless these muscular fibres being not supported by the simple solids yield to distention. That this possibly may be the case is proved by ruptures of the *Aorta* near the heart, often observed after death, by the known tenuity of the simple solids, in acute hæmorrhages, which also support this observation, and the insuperable leanness of many persons, otherwise strong does the same.

That

That this is the case, is also evident by the same appearance of hæmorrhagic people, and by the cure as far as it is properly managed.

In this peculiar condition, the state of the vessels of the part, and of the whole body is the same, but that here some small particular vessels, being unsupported by the neighbouring parts, are relaxed and ruptured.

Contagious matter, causes inflammatory eruptions on the skin, being there collected and rendered acrid by stagnation, which consequently are only symptomatic. So the intention of cure, to be drawn from thence, is to diminish the too great *excitement*, and reduce it to the proper standard of sound health.

Peculiar symptoms, attending a dense eruption in a typhus, proceed from a Phlogistic Diathesis, increased too high in the end, and thence *indirectly debilitating*. As the cause constituting a Phlogistic Diathesis,

thesis, is such as has been mentioned before, Vol. II. page 27. so the intention of cure, deducible from thence, is to diminish the *excitement* in all parts of the system, until it comes down to that degree which is necessary for health. The remedies affecting this intention are the very same powers which create this *Pblossigistic* Diathesis, by stimulating too highly but now acting with so low, and diminished a stimulus, as not to give that degree of *excitement* which is necessary for health. Therefore as the same powers which are hurtful, by too extraordinary a stimulus, are called stimulants, so these powers when serviceable from their low operation, are called *debilitants*, for there are no sedatives in nature.

That temperature which is called heat, is altogether here to be avoided, because that degree of it which *debilitates*, viz. too much in the extreme, cannot arrive at that magnitude which *debilitates*, without a danger of very great injury or
destruction

destruction, resulting from such a violent stimulus.

When an increased Diathesis, and *excitement* causing that Diathesis, are not very violent, in this state of a proper disease, we are not to hinder the application of that degree of heat which attends sweat, or the tepid bath; because the loss of fluids by sweating, and the agreeable sensation in bathing, give us reason to expect more advantage than the disadvantage resulting from a moderate degree of heat.

But particularly, heat is to be avoided after the application of cold intense in any degree, because the operation of it becomes more powerful, in consequence of the increase of *excitability*, by the application of cold, this effect is the more to be dreaded, the more numerous the stimuli are, which co-operate at the same time. Cold here is a salutary temperature, provided it be succeeded by no great heat. Therefore, that error in

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the practice of physic should be corrected, which supposes cold, by its stimulating effects, to prove noxious in a Phlogistic Diathesis, and the same operation of cold is to be understood to do service in the small pox, not so much by its *debilitating* power, as by avoiding stimuli, after its operation. The same cold, by making use of proper caution, is lately found to be the most effectual remedy of Catarrh, which is constituted by heat alone, or by succeeding cold, either by itself or when conjoined with other *debilitating* powers.

From whence, and because a cap made of fresh clay has been of service in a phrenitis and that degree of cold which constitutes frost and snow, being applied to the body, removed a Synocha, attended with a delirium; and in like manner the same application of cold has been serviceable in the small-pox; for these reasons, the application of it is to be extended to the whole circle, both of Predisposition
and

and Diseases, depending on a *Phlogistic* Diathesis.

That no injury can arise from the supposed astringent power of cold, in a *Phlogistic* Diathesis, is evident from its great efficacy applied to the surface of the body, in the small-pox, by which the perspiration is rendered the more free and open, and that, the greater the power of cold is applied.

That you may, with greater certainty, be able to command a *Phlogistic* Diathesis, in that state thereof which indicates a great danger of Disease, you should order abstinence from animal food, and all preparations thereof, and administer freely a vegetable diet. This Diathesis, increased to the magnitude of a Disease, is removed by abstinence from animal food, especially in a solid form, and by a competent use of vegetable diet, of the most succulent kind. This Diathesis, I say, is removed in the best manner possible, as far as regards

F 2

regimen,

regimen, in the manner described; See VOL. II. page 22, 23.

In every part of this Diathesis it is proper to decline the use of condiments, which in these Diseases are poisonous.--- Watry drink is suitable to the same Diathesis, and all strong drink noxious, and the more so, in proportion to the quantity of alkahol it contains. This same alkahol, if it be not highly diluted, is a destruction in *Phlogistic* Diseases; in all which, water, to which a small quantity of acid is added, exceeds the use of small beer, which a very great author has taken into practice.* Inasmuch as the *indirect* stimulus of food assists the *direct*, *i. e.* diffuses the stimulus through the whole system, consequently limits should be put to the bulk of the suitable matter taken in. page 45, VOL. II.

In order to diminish the stimulus, which abundance of blood and chyle *directly* affords to all parts of the body, this abundance, when greatest, can be removed
by

* Sydenham.

by abstinence, venesection, and purging; but when the quantity of blood is but moderate in these diseases, the directions delivered above, which relate to an inferior kind of Diathesis, are to be observed; that is to say, we should persist in purging, now and then, in ordering a spare diet, but not draw away blood. And if at any time food should be taken in somewhat liberal; we should promote perspiration by gentle and repeated exercise. These things will remedy the effects of too violent circulation of the blood, and as far as it regards its quantity; which velocity depending on the violent motion of the body, which, in an inferior Diathesis, constitutes predisposition or Diseases of the Phlogistic kind, will be diminished by using less exercise, more rest, and less of the other stimulating powers. But in the greatest Diathesis, which causes the most violent diseases, the stimulus of all the *exciting* powers must be as much as possible prevented, and blood let in the greatest profusion, in order to retard the violence

violence of circulation. It is needless to *direct* the patients to rest, which they necessarily must do, whether they will or not.

The stimulus, which abundance of the fluids secreted in the excreting ducts causes distention, is removed by taking away the powers which create it. Therefore, copulation should be more frequently used, milk avoided, take less nutritious diet, let perspiration be restored by removing the Phlogistic Diathesis on the surface of the body.

The proper remedy of the stimulus caused by thought, whether vehement or long continued, is a remission of the same, and let that frequency be attended to which in the end *debilitates*, both in magnitude and frequency, which by wearing out the *excitability*; in fine, at last brings on *indirect debility*, which rule, as it is suitable to the state of predisposition, so it cannot be omitted, with any sort of propriety, when a disease takes place, especially

especially of the vehement kind ; because there is no coming to the assistance of the disease, which is *debility*, except thro' that intermediate magnitude of stimulus, which would prove hurtful by increasing the *excitement* already too great.

In order to remedy a lesser degree of Diathesis in predisposition, and to obviate disease, the habit of violent passions is to be checked.

The extreme effect of these passions, as *indirectly debilitating*, is by no means to be wished for, on account of the intermediate danger of extraordinary *excitement*.

These powers, the same in kind which constitute the Phlogistic Diathesis, differing only in magnitude, and altogether opposite in this respect, very seldom, and with less success each part, but very often, and with better success, when very many are applied ; but best of all, when all are
conjoined,

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conjoined, and great necessity requires, it, remove this Diathesis. &c.

As venesection is the most powerful of all, as being that which compleatly takes away a stimulus, which is by so much the more powerful, by how much it is more extensively applied to the body, so whenever this Diathesis comes to any great height, it is to be used extensively or largely, but never in predisposition, and is very sparingly, or not at all to be used in the milder kinds of Phlogistic diseases, and the cure is to be left to other remedies.

Cold, taking care that heat should be avoided after its operation, and other stimuli claims to itself in the cure of Phlogistic diseases, the second place; heat always proves hurtful, and more so, when it comes after cold; but particularly so, when conjoined with other violent stimuli. Cold always proves serviceable, and that in proportion to its magnitude, if a
foreign

foreign stimulus, conjoined with its operation, or following after it, or exceeding it, be cautiously avoided.

Purging occupies the third place after these, which very powerfully resolves a Phlogistic Diathesis, and consequently obviates, to the great benefit of the patient, the necessity of drawing blood. This same power, even alone, is sufficient to re-establish health in some cases.

Together with all these powers we must withhold the use of victuals, whose stimulus prevents the good to be derived from the former powers, and that in proportion to the magnitude of the Diathesis. Which alone is sufficient for removing always predisposition, and very often such diseases as are caused by the milder Phlogistic Diathesis.

With all the foregoing powers, rest is to be conjoined in every disease, and all
VOL. II. G things

things that allay motion, in predisposing to these diseases.

The worst custom of the general run of physicians, is, that they continue the too great application of some one of these remedies, omit all the rest, or pay little attention to them. We should not depend on venesection alone, even in peripneumony, but all the other powers should be applied at the same time, or in succession. In a word, as the powers which constitute predisposition to disease, or diseases themselves, operate more violently on one part; that is, that part which it directly affects, so all the remedies too are to be directed, each to different parts, that the general effect of all may, with greater certainty, reach the whole system, and every where equally act on the *excitability*. The Spaniards besieged Gibraltar, with less hopes of carrying the town, the narrower the passage was to attack it by, as they would make a greater impression on it, if their soldiers had it in their power,

in

in many parts at once, or in all places around, to batter down the walls, and undermine them.

We obviate the symptoms of debility which follow in the course of the disease, and the vehemence of a Phlogistic Diathesis, in the course of the disease, threatening death by *indirect debility*; I say, we obviate these symptoms by the foregoing remedies timely applied.

The same timely cure tends to prevent suppuration, effusion, and gangrene, arising from too great *excitement* in the end, and thus passing into *indirect debility*.

A tedious or chronic inflammation, following an acute one, as being a local affection, for a general one, belongs to another place, depending on a relaxation, and atony of the fibres of the vessels, and is to be cured by all kinds of powers, which give them strength and *excitement*. Cold is the remedy here whose action we have

already explained, which in this case affects the part, as it does the whole body in other cases, not by causing an astringent, which is either wanting or cannot remain, the cause being removed. The notion of astringent depends on a false idea of cold, because the heat is less, it acts consequently on simple matter, as is the case here like heat, but diminished. If then heat relaxes, cold must also relax, but less. After which manner acting in this case, it is useful, but the increased *excitement*, following this operation of cold in this case, as well as in others, is to be attributed to the increased power of the succeeding stimuli. Lest this condensing effect of cold may be lost, the too great and consequently relaxing power of heat is to be avoided. The latter is to be applied in such a quantity and so low, as produces a just *excitement*, without the preceding application of cold. After the application of cold, therefore a moderate degree of heat is proper: Too great heat
is

is hurtful by bringing on *indirect debility* which increases the disease.

As an acute inflammation can be changed into a chronic one : So the intire Phlogistic Diathesis can be changed into an Asthenic one, the pathology as well as the cure of which, is to be referred to the class of Asthenic diseases ; but the intention of strengthening the whole system and of the part liable to inflammation, in consequence of relaxation and atony, and defending it from this cause belongs to this place.

Besides these directions, care must be taken that the body be so placed as that the blood, inclined by its specific gravity, should not, in a great quantity flow into the enfeebled and relaxed vessels of the part affected.

It belongs also to the cure of all profluvia, whenever they threaten that every violent motion of the body, consequently
exercise

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exercife and particularly hard labour be avoided. And alfo that intire reft be obferved, or at moft geftation only ufed.

If, along with the effects of ftimuli or acrid fubftances, wounding or eroding any interior part, a Phlogiftic Diathefis fhould chance to be conjoined with a pyrexia, a fimilar method of cure proves effectual. In which cafe the phyfician fhould take it up as a certainty that he attacks the general Diathefis, and does not proceed to the cure upon any other grounds.

THE
PHLOGISTIC DIATHESIS,

Illustrated by the Explication

OF THE
SYMPTOMS.*

THE vigour of the senses, motions, with the mind, and affections depend on the increase of the *excitement*, in their

* By former doctrines, the illustration of the symptoms has been as follows.

The heat is excited by the reciprocal action, and reaction of the solids and fluids. The irritation on the fibres increases the action of the vessels; the velocity of the fluids is thereby quickened through them, and

their separate organs, which affects the blood during its other operations.

thus heat is excited in proportion, as there is crassamentum in the blood.

The pain is excited by the distention of the vessels, in parts become already preternaturally sensible.

The swelling is not caused by obstructed blood, but by the excess of heat distending the cellular membrane; but swelling is not essential to constitute inflammation.

The redness proceeds from the quantity of blood brought to the part.

The quickness of pulse from that law of nature, by which the heart always increases its efforts, to free its vessels from any injury they may sustain from accidental, or preternatural irritation.

The dryness of the skin is said to proceed from the stricture in the capillaries, whose use is greatly impaired by the irritation on them.

The itching is but the beginning of what terminates in pain by its increase.

Horror

Horror characterizes the beginning of all Phlogistic diseases. This arises from the diminished perspiration, in the extreme vessels of the skin, during a vigorous Diathesis. The sense of cold, which often accompanies horror, may be explained by the same.

In these same affections the pulse vibrates stronger, harder, more full, and somewhat more frequent than in sound health. Animal food taken plentifully during the time of the predisposition renders it full and hard. The same stimulus, or any other, as that of strong drink, exercise, whether of body or mind; also all the noxious stimulants indeed produce this effect.

But if, during the disease, the pulses become softer, weaker, and more quick, it is a bad sign, and it comes from either a debilitant, cure being tried beyond proper laws; or, (this being neglected) from

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a too great force of *excitement* bringing on some little *indirect debility*. The former cause *direct*, the latter *indirect debility*, both must certainly be shunned and avoided.

A redundancy of blood, suppressing perspiration through a too great Phlogistic Diathesis, causes a pale colour in the vessels of the surface of the body, which is often the result of an abundance of secreted fluids. This is the cause of the head-ach and pain in the joints. Which as often as it affects the head it easily yields to letting blood; therefore an inward inflammation here, is seldom to be suspected: And the less so, because in common Phlogistic diseases the arising inflammation always occupies an outward or exterior place, as much as we can learn.

Delirium which sometimes takes place in a too vehement disease, is not to be imputed to inflammation, for a reason lately given.

given. For it so appeared by the de-
traction of blood and the other fluids, that
we have no sufficient reason to believe it to
be inwardly, a redundancy of blood in
the vessels distending them beyond mea-
sure is the principle and whole cause of
this; hence a ruddy countenance, shew-
ing that redundancy, and from thence
venesection driving away the disorder at
one stroke, is an evident proof.

Thirst and heat, the great marks of
Phlogistic diseases, depended on the Phlo-
gistic Diathesis in the extreme vessels of
the jaws, and of the skin, this so ob-
structing the passages as not to permit
perspiration; yet nevertheless suffers the
blood to pass the bounds of the small
vessels, and thus increases the natural heat
of the body under the skin, on account of the
perspiration being thus suppressed, and the
mouth supplied by the extremities of the
vessels, which pour out spittle, and other
fluids; which in their free flowing prevent
dryness and that sense called thirst, but now

being obstructed, beget that very disagreeable and troublesome sensation, generally proceeded in this order and succeed one another. Hoarseness is often the first, then a dry cough, attended at last with spitting. The origin and source of the hoarseness and dry cough, is the limits and ends of those small exhalating and mucous vessels, which terminate in the bronchia, being shut up by a vehement Diathesis and not transmitting those fluids, by which the bronchia and aspera arteria are lubricated, if the hoarseness is removed the spittle easily follows again, and is freely ejected.

As the free flowing of spittle demonstrates a relaxation of the Diathesis, so a too free evacuation, is a sign of *debility* taking place, the disease tending to an asthenic diathesis, by proceeding to *indirect debility*, as when a disease hath exhausted the *excitability* or through *direct debility* by too great a use of debilitants.

These

These same symptoms while they are kept within the bounds of *direct debility*, or not yet changed to *indirect*, are occasioned by heat and what ever stimulates too much; and are removed by cold, or whatever debilitates, &c.

Paleness or clearness of urine and costives, which happen particularly about the commencement of a disease, comes from the magnitude of the Diathesis, so shutting up the ends of the vessels, that either nothing may be voided, or else only the thinner part of the urine may flow. The absence of thirst, looseness of the belly, and restoration of perspiration, &c. are signs that the Diathesis remits gradually, and that the disorder is mitigated; and, that it is in such a state that by vomits, clysters, and sudorifics accompanied with other antiphlogistic remedies the disease may be entirely rooted out.

Often

Often in Phlogistic Disorders of a milder nature; the desire of food is not much diminished, it often may be taken in a greater quantity than what is really useful; but unless a slight matter of herbs alone be given, and that in the form of a watery portion or some liquid, it will be attended with bad consequences.

But when the disease is arrived at its greatest height, either through the indulging of too nourishing food, or by stimulant remedies being applied, or arising in the beginning, from strong noxious powers; then all the other bad symptoms above-mentioned, as well as the grievous host of complaints of the stomach, and an acute pain in the breast, disturbing it directly take place.

In a vehement diathesis, therefore, where there is little want of food, and great call for water to drink, this latter must be indulged by all means, and the
former

former must be avoided, as *exciting* a loathing, sickness and vomiting. These are not usual, unless the diathesis is going to turn, or has turned, by the means related above, into an asthenic one, and the other symptoms being removed, they yield to a proper antiphlogistic cure. But when sickness and vomiting are urged on and violent, and more permanent, yet we know that they are without *indirect debility*; if the pulse yet keeps a moderate quickness, and does not abate much of its fullness and force; if vomits and clysters lessen the morbid state; in a word, the antiphlogistic remedies then answer. But when the disorder is changed, and the cause is become diametrically opposite, then we shall understand, as these symptoms increase every day, and the pulse becomes weaker when the griping in the bowels, and liquid dejections are added to the whole host of stomach complaints, that then the antiphlogistic cure is manifestly hurtful.

While

While the symptoms do not indicate *indirect debility*, a too great *excitement*, tending to it, excites commotions sooner in the stomach than any where besides, on account of its great sensibility, and the force of the more powerful stimuli acting chiefly thereon; for here are the most powerful stimuli applied first, such as are particularly proper to excite a Phlogistic diathesis, and they exercise a greater force over the *excitability* of the same. Such are the various preparations of animal food, different mellow wine, different seasonings, various diffusible stimulants, as the forms of opium, volatile alkali, camphire, musk, and æther; all which affect this more than any other equal part; more than the intestines, for their principles are first changed by concoction before they pass the duodenum; more than the lacteals, because they are received by them after they are diluted and changed by the operation of concoction, and when they are received they are carried to the blood; more than

on

on the heart and arteries, on account of the same dilution, and perpetual change in the whole circuit of mixture, more than on the extremities of the arteries, either exhalant or glandular, or whether they eject the already corrupt matter out of the system, or they bring something salutary to the blood through the lymphatic vessels, and that as well for the same reason, as on account of some great change produced in the exhalants and glands; more than on the lymphatic vessels; where a new fluid constantly passes to the old ones, through the branches that run between, and particularly the thoracic duct; more than on the other blood vessels, on account of the great change from their repeated circuit; more than the muscular fibres, whether voluntarily or not, because the stimuli do not touch them; more than on the brain, or the medullary solid, for the same reason, and on account of the great distance of these parts from the stimulants. In a word, as

noxious, or medicinal, act more powerfully on some places than on others, and these same are the first that are operated upon, and come directly in contact; these, therefore, before all others, are more ready to pass from a Phlogistic to an asthenic Diathesis, or *vice versa*; but yet in such a manner, that, though the *excitability* be one only and indivisible quality in the system, whether the *excitement* be increased in a peculiar place, or whether it be diminished, and whether it be lessened, through *direct* or *indirect debility*, and the asthenic Diathesis be now formed, the other operations of the system soon follow the genus mutationis.

And seeing the powers, which acted, have been and actually are the same, *i. e.* either too great or too little stimulants; and seeing the *excitability*, on which they have and really do act is the same, *i. e.* the whole cause is the same, it is necessary that the effect should be
the

the same, *i. e.* the mode of operation in the whole system, whether redundant or deficient, is necessarily the same.

Inflammation, the companion of phlegmasia, always almost occupies an outward seat, as far as we know its nature. The reason is, because heat, which is a very powerful Phlogistic noxious power, either alone, or alternating by turns with succeeding cold excites its force, on the parts, to which it is directly applied, much more than inwardly, where the temperature is almost always unchangeable, as also the lungs, by different forms of inflammation, which are to be accounted as external and outward, because a *direct* passage to them, is open to the air, are, before all other places, affected with inflammation. Besides, the violence of the *exciting* noxious power just mentioned, there is a sensibility of the part that is to undergo inflammation, and a greater and more abundant *excitability*, than in the other parts, which is the

cause that first one of the above mentioned parts, and then another are affected above all the others ; an addition to the cause is, that in whatsoever any of the abovementioned parts are offended, and in whatsoever manner it has undergone that inflammation, peculiar to the phlegmasiæ, that some part on every accession of a new phlegmasia is in more danger than all the rest. This is the manifest source of some phlegmasiæ, as of the repeated cynanche tonsillaris and rheumatism. The peripneumony happens more rarely than the other disease of this kind, because it is obviated by many means proper to prevent Phlogistic Diathesis together with its companion inflammation, viz. by breathing a clear air in the ordinary state of it, &c.

Inflammation here is nothing else than a state of the part inflamed common with the rest of the system, but more increased than in any other equal part, and as *excitement*, more augmented in one place than

than any other equal one constitutes inflammation; so, before a disease, of which inflammation is a part or symptom, *excitement* is understood to be greater in that place, in proportion, than in any other. This is an inflammation accompanied by a Phlogistic Diathesis.

This inflammation, for distinction's sake, is to be called common Phlogistic, is to be distinguished from the other, which is a local affection arising from local injury, and consists in the fault of an organ or solution of a part.

The word local agrees with this latter Phlogistic inflammation, and the common always depends on the Phlogistic Diathesis; and is only a part or symptom, never preceding, but always sooner or later succeeds it. It rises from the same noxious powers, and is cured by the same remedies. On the contrary, the local inflammation, as it arises from a local affection, which dissolves the continuance or disturbs the texture

texture of the part; so if the part affected be not very sensible, the consequence will not be very dangerous. In a part endued with great sensibility, as the inside or outside of the stomach or intestines, or of the tender flesh under the nail, the effect is often spread over the whole body, and, from the affection of all the vessels, a commotion or restlessness every where takes place. This same inflammation, whether local or common, gives way to those remedies alone, which operate on the part affected first, and tends to restore the continuance of the part. These will suffice at present concerning the distinction of Phlogistic inflammations, more will be said when we come to treat of the local ones afterwards, in their proper place. Many other things remain, both of the local and common, to be explained hereafter.

Inflammation is known by the symptoms of perturbation, as often as the vital organ is affected; but, whether or no, common

common Phlogistic inflammation ever attacks the brain and its meninges, is as yet uncertain. It is more probable that disturbance in the brain and phrenzy do not depend on inflammation, as the following examples seem to shew: First, The facility of the cure, since all these disorders give way to bleeding, clysters, and other anti-phlogistic remedies; nor is it credible that the effects of a proper inflammation, in so tender and necessary a part of the body, could be so easily removed. Secondly, There is no more certain proof of inflammation being removed, than health being restored. Thirdly, The similitude of the cause produces the same effects, and, as has been before related, no common inflammation arises inwardly almost under a common Phlogistic disorder; which inflammation, whenever it happens, always occupies an exterior place. Moreover, all the symptoms are of the same nature with those that arise from the common Phlogistic noxious powers, and will yield,
in

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in proportion to their magnitude, to all the common antiphlogistic remedies.

The reason of head-ach, red eyes, and delirium, which attend phrenzy, and are imputed to inward inflammation, is the abundance of blood in the vessels of the head, distending them immoderately, and thus through violence of distention causing great pain.

Moreover, there is no doubt but inflammation is the result of that disturbance which usually happens to the lungs, and that the external pains here correspond to internal inflammation; and as inflammation is in proportion to the magnitude tho' of the Phlogistic affection, which inflammation never happens, unless in a great diathesis, so the pain is in proportion to the magnitude of the inflammation; and from the consideration of the same cause, the state of the pulse is to be estimated; in a great diathesis, its result will be a proportionate inflammation. There is an
acute

acute and, as it were, pungent pain about the breast, sometimes about the sternum, then over the breasts, then beyond both, then in the back, either between or above the scapulæ, and the pulse is strong and hard. In a less diathesis and inflammation, the pain is less acute, a little more dull and tolerable, the pulses are hard and strong, yet less so than in the other case. Afterwards, during the progress of the disease, the pain abates again, grows dull, and the breath, which was disturbed, is now easier and more readily taken. The pulses, which before had only little hardness, now indeed, on account of the magnitude of *indirect debility*, through neglect of proper remedies, or on account of bringing on *direct debility*, from too great a use of the antiphlogistic cure, are entirely softened. But the hardness of the pulses, and encrease of pain, is never to be referred to the seat of inflammation on the brain; nor is their softness and dullness to be thought to consist in the substance of the lungs as the seat of in-

VOL. II. K inflammation

flammation; because it is impossible for inflammation to occupy either of these parts, and not to be found in the parts contiguous to them. The cause of these symptoms above related, therefore, is to be admitted as the real one.

The pustules, which attend certain Phlogistic disorders, arise from contagion received in, and spread over all the system, and is retained under the skin, with the perspirable fluid in the vessels of the same. The cause of the retention and multitude of pustules, is the Phlogistic Diathesis, prevalent in the whole system, but more so in the vessels of the skin, for the reasons above related. In which operation the muscular fibres of the perspirable vessels, because they are so much, inasmuch as they are hitherto considered as simple solids, denser, are as much as they are considered as living solids, augmented in tone, and are therefore excited to such a degree, as not to let pass the vapour of perspirable matter.

Of

OF STHENIC DISEASES.

ALL Phlogistic diseases are attended with a general increased *excitement*, which is evinced by the increase of vigour both in body and mind and the increase of some, and the disturbance of other of the functions.

There are some of these diseases which are distinguished from others, by their degrees of magnitude. Some sthenic diseases are attended with a pyrexia and an inflammation of some external part, some are without this and some are attended with neither.

The common sthenic disorders attended with a pyrexia and an inflammation, are called partly phlegmasiæ, partly exanthemata, which without any distinction, we will treat of in their order of *excitement* from their greatest to the least.

To the Phlogistic phlegmasia and exanthemata, are common after the Phlogistic Diathesis, as much as usually happens in the predisposition, a horreur, sense of cold, languor, weariness as it were, quickness of the pulse, moderate in the beginning, and in a mild disease, a strength and hardness of the same, a dryness of the skin, a retention of secretion in some places, a redness of urine, great heat and often thirst.

To these are peculiar an inflammation of an external part, or an affection nearly allied, preceded for the most part by a common affection, but never followed by such. Which common affection, to distinguish it the better from *Fevers*, is to be called pyrexia. In sthenic exanthemata an eruption of spots, or pustules covers, or marks the whole skin, more frequently or more seldom, according to the magnitude of the Diathesis. Any foreign contagious matter, received into
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the body and retained under the skin, produces the same effect.

The explication of all these, from the doctrine delivered above, flows spontaneously. The sthenic Diathesis precedes in the manner we have spoken of so much before when excited by stimulant powers. The indications, from the pulses are never to be referred to any affection of them, for we have shewed that they arise from the redundancy of blood, which stimulates by distending the vessels.

The quickness of pulse is here moderate, because while the stimulus excites one part, the quantity which is to be moved, prevents its quickness. It is manifest that it cannot pass with that quickness, as when there is a scarcity of it. A strength of pulse arises from a magnitude of *excitement* in the moving fibres of the vessels, which is commonly called tone, and from a magnitude of the density, of these same fibres considered as simple solids.

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solids. Hardness of pulse is nothing else than a strong contraction remaining sometime, and keeping a quantity of blood in a narrow space, and thus representing as it were a tense chord.

That this is the exact state of the arteries is before proved, by the quantity of food required and taken in the time of predisposition, and by every such power as constitutes such a state uncommonly exciting every where, and consequently, among other effects, increasing the digestive powers; and also by aliments, which prevent and remove the diseases, in conjunction with other *debilitating* powers; which, as it was a very pernicious error to have confounded this state of the pulse with a contrary one, which has continually been the case, as it prevented the method of cure, so it cannot but be of great advantage to place this state in a very clear light.

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Horror and a sense of cold depend on dryness of the skin as a cause. Langour and lassitude indicate a greater *excitement* of the brain and muscular fibres, than can be properly borne by the *excitability* restricted to certain limits: consequently the actions are diminished here by a stimulating, not a *debilitating* cause; a great *excitement* and density of the fibres surrounding the extreme vessels causes a dryness of the skin, which diminish the diameters, so far as that the perspirable vapour cannot be taken into them, or, if taken, cannot be transmitted through them: which state is not a spasm or a striction proceeding from cold, but a Phlogistic Diathesis, greater in the skin than in any other part; because the stimulating power of heat, especially after the application of cold at other times, being a noxious power, causing Phlogistic diseases, operates more strongly on the surface than on the interior parts, and increases the sum of the stimulating powers.

The same is the cause of a temporary retention of other excretions, but that the mentioned operation of heat is different from the explication, and from thence a lesser degree of Diathesis affects the interior excreting vessels, which are relaxed, both on this account, and because they are naturally larger than the exterior ones, sooner in these diseases. The redness of urine takes place, because the general Diathesis, attacking the vessels secreting urine, prevents the secretion;---hence the fluid to be secreted endeavours to distend the vessels, and bursts them. The muscular fibres endeavour, by contracting themselves, to counteract and resist the distention, as far as they can discharge the office of simple solids; to which distention, during the violent action of the living solids, the force of cohesion in all the solids yielding somewhat, transmits the particles of blood, which does not take place in the beginning of the disease, because the distention of the fluids does not suddenly overcome the cohesion

cohesion of the simple solids 'till after some time.

Obstructed perspiration is the cause of great heat, preventing that generated within the body to pass through the pores of the skin; which shall be more at large explained, when I come to treat of the same symptom happening in fevers too, in part; and on the same account a Phlogistic Diathesis, shutting up the excreting vessels, and hindering the excretion of the fluids of the fauces, creates thirst; to produce which effect, heat contributes, by dissipating the fluids that are excreted. Inflammation, and the affection bordering on it, whether it be catarrhal or any other affection, is a part of the Phlogistic Diathesis, greater in the inflamed part than in any other equal one, which the noxious *exciting* powers acting on the whole body, the symptoms of diseases, demonstrating a general affection, and the remedies removing it from the whole body, evincing a general affection, which generally

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precedes or happens at the same time with the affection of the part, and never follows it, because too great *excitement* being its cause, creating the Diathesis and diffusing it all over the body, pre-exists before the disease, and as it forms the rudiments of the local affection in predisposition so it does not from the local affection not even in a disease always, only in a certain magnitude of the latter, and of itself, hence in a great Diathesis, the affection of the part is great, in a lesser, it is inconsiderable, in a small and gentle Diathesis, there is no local affection at all, because a great magnitude of the morbid Diathesis is necessary to constitute it. Thus in peripneumony where the Diathesis and pyrexia are very great also in rheumatism, where it comes next in magnitude, the inflammation is formed great in proportion, in like manner ; in the measles, the danger of which disease entirely consists in the vehemence of a Phlogistic Diathesis, an inflammation equally dangerous arises which, very often
attacks

attacks the lungs, and that dangerously. A Synocha phrenitica never happens but when a great Diathesis occurs, which causes an inflammation of the brain, or a predisposition to inflammation, nor is there any danger to be apprehended in Erysipelas from the inflammation even attacking the face except when the pyrexia is violent, which when mild insures us of a prosperous termination. A simple synocha is nothing else but a phlegmasia, consisting of pyrexia and a Phlogistic Diathesis unequal to cause an inflammation on account of its smallness. Nevertheless as all the noxious *exciting* powers and all the remedies are altogether the same as of any other phlegmasia, it was a very great mistake to separate it from these, and conjoin it with *Fevers* which are diseases of extreme *debility*, and the more so because inflammation which is falsely supposed necessary for phlegmasia, is not wanting in this disease as often as a sufficient Diathesis for *exciting* it takes place. Which nevertheless could not be discerned on ac-

count of another error equally great and equally noxious, whereby the inflammation was considered as the cause of phlegmasia. In fine that you may be sure, that inflammation does not differ from the nature of catarrh, but is very often wanting on account of the usual mediocrity of the general Diathesis, as often as the Diathesis increases which happens thro' a neglect of the proper method of cure, and from the effect of the noxious powers extended beyond the usual bounds an inflammation and very formidable too, arises often attacking the throat, and lungs, and *exciting* a disease, similar to a peripneumony, In fine, the cause is evident, why inflammation is wanting in all hæmorrhages. In that character of Phlogistic diseases, the general Diathesis being mild from the beginning and continually being kept moderate by repeated hæmorrhages, and sometimes altogether removed for a time. I say, such a Diathesis can never rise to that magnitude which is sufficient for forming inflammation.

This

This example of a thorn under the nail and wounding it, and bringing on inflammation after a wound, and communicating a similar affection to the shoulder, and a pyrexia all over the body, is mentioned to no purpose, as confirming and illustrating how phlegmasia proceeds from inflammation. For nothing like a phlegmasia follows this or a similar local injury, except a Phlogistic Diathesis happens to pre-exist in this case too, so as to pass or change into any disease. Without which Diathesis, no general affection takes place in the contrary Diathesis, a contrary disease arises, viz. a typhus of the most dangerous kind symptomatic of a gangrene.

That a local affection depends on a general one, and the general one not on the local is further proved by the presence of a inflammation often without being followed by any phlegmasia. Because as in the case just now mentioned, it very often happens, because either a general Diathesis

thesis is wanting or the place inflamed is not internal, and not very sensible. Thus all the instances of Phlegmon, all the instances of Erithma or Erysipelas, without a general Diathesis, being different from phlegmasia are very improperly connected with them, but more improperly with their *prototypes*, inasmuch as all these are local diseases, or symptoms of other diseases. Nor does a certain similarity of diseases, of internal inflammation, with phlegmasia invalidate this opinion: Inasmuch as these diseases are not preceded by the usual noxious powers, creative of phlegmasia, or any general affection, nor are cured by general remedies.

These diseases consequently, which arise from acrid stimuli and compression, and which are curable by removing alone the cause, which is seldom done by art, are ranked among the phlegmasia, thro' error of the worst kind, and most adverse to the cure.

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The name of *Pyrexia* has been given with very great reason to the general affection which appears in phlegmasia, and the two next characters; as by this they may be distinguished from *Fevers*, which are diseases of extreme *debility* on the one hand, and on the other from a similar, but altogether different evil, which is a symptom of local diseases, and may be called a symptom.

The true phlegmasiæ which answer the definition are peripneumony, under which are comprehended the phrenites and the cardites as far as it is a general affection, a synocha with an affection of the head called phrenetica, rheumatism, erysipelas, cynanche tonsillaris, catarrh, and a simple synocha.

The HISTORY of PERIPNEUMONY.

THE peculiar symptoms of peripneumony are a pain in some part of the thorax, often shifting its place, difficult breathing, coughing generally, spitting sometimes blood.

The seat of the disease is all over the body, the whole nervous system with an increased Diathesis, in a state of predisposition general to the whole body, and no other new cause creating the disease, an inflammation within the breast, following the pyrexia after a considerable length of time, but never preceding it, venesection, and all the other remedies affecting not more, the place inflamed than any other part equally distant. I say, all these things prove that the disease is general all over the body, and the whole nervous system.

The peculiar seat of the inflammation which is a part of the general Diathesis,
is

is the substance of the lungs and the membrane, proceeding from the covering the surface of the same, called the *Pleura pulmonalis*; or a certain part of this membrane either covering the ribs inside, or including the *vicera* of the thorax without; in different parts of it, in different cases, and even in the same case, different parts are affected.

The pain in any outward part of the thorax depends on the inflammation of the different corresponding parts within, just now mentioned, which is confirmed by dissection of bodies; but it is very often the lungs adhering to the *pleura-costalis* constitutes the pain.

When the inflammation attacks the surface of the lungs, it cannot adhere or be confined to any other part separately, either the substance of the lungs or its membranes; for, if you but study the matter, how can you conceive that single

points of the same vessels, whether creeping on the surface of the membrane, or descending into the substance of the lungs, or emerging from thence, can be inflamed without an inflammation of the adjacent parts?

In like manner the distinction of inflammation into the paranchymatous and membranous, and the supposition of its being continually in the latter, is equally foreign from truth; which distinction, be well assured, was mentioned, not so much for the sake of practice (for the dispute does not at all concern the cure) as for the sake of shewing the usual vanity of pathologists.

The pain, during the course of the disease, often changes its place; because the inflammation, which is its immediate cause, is equally changeable, leaving its first place, or partly keeping it and partly quitting it, and rushing with violence into another place: which the well
known

known change of the seat of pain, compared with the vestiges of the inflammation of its corresponding parts, discovered after death, confirms. Which circumstance reflects, by another very weighty argument, on the notion of the disease being constituted, supported or depending any how on an inflammation of the part, corroborates the opinion laid down here, and shews that the inflammation is directed by the general Diathesis, one time on this part, and another time on another, increases, and is in some sort multiplied; this is further corroborated, because the cure shews that the inflammation is weakened, rendered less extensive, and is removed from all parts of the body, when the general Diathesis is lessened or removed. The consideration of rheumatism confirms the same thing, whose powers are more severe and more numerous, in proportion to the strength of the general Diathesis, and milder and fewer in number in proportion to its slightness, distinguish these pains; depending on the general

Diatheſis being a part of the general diſeaſe, from local pains, which very often happen alone without any general diſeaſe, and may chance to go before a general affection, if you do not wiſh wantonly to ſport with terms, in a matter of importance to betray a ſcandalous ignorance and to impoſe upon the ignorant.

The difficulty of breathing is conſtituted by no excluſive fault in the lungs, or organs of reſpiration, by no deficiency of *excitement* in them, but only from the inhalation of air, which fills its proper veſſels, diſtends them and thereby compreſſes the ſanguiferous inflamed ones.

The cauſe of coughing proceeds from perſpirable matter, as mentioned before, and alſo from mucus ſecreted and excreted, violently irritating the air veſſels, increaſing the *excitement* of them, and of every other power, enlarging the capacity of the thorax, &c. and thus performing a very full inhalation and exhalati-

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on of air, while they will partly co-operate.

This coughing is slight, or scarce any at all in the beginning, because in consequence of the Diathesis, as yet powerfully attacking the extremities of the vessels, the same fluids passing off in the form of an imperceptible vapour, very little irritate, and pass away with the breath, with little difficulty. Spits follow the same, because the humours accumulated together with their effect, which is the retention of mucus, are swept along in the effort of coughing, perhaps and the violent impetus of the effluent air, as if it were by a running stream, the blood sometimes mixed with these spits indicates the force of secretion already explained. The softness of the pulse, in the common acceptation of the word, in this case is to be excluded, as an indication because the symptoms of the pulse do not follow an inflammation, but the general Diathesis, which being regarded, the pulse
which

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which is not very hard, may be called soft, but regard being had to the cure, the pulse may be called soft. Nor is the various sensation of pain, which is sometimes acute, and as it were pungent, and other times obtuse and heavy, and rather to be considered as an anxiety, altho' *directly* depending on inflammation, or indicating its state and seat, to be counted a matter of any great moment, because, however great the inflammation may be, wherever it may be situated, and whatever danger it may threaten, the only method of removing it, along with the danger of the disease, consists in removing the general Diathesis.

The notion therefore of the inflammation of the pleura pulmonalis in the acute peripneumony, or of the paranchyma in the obtuse, is to be rejected as useless, and guarded against as destructive, for very often during the course of the disease, when far advanced, the pain suddenly ceasing while the breathing is not proportionably

portionably lightened, affords a false appearance of a recovery to an unskilful physician. The cause of which being altogether different from the nature and seat of inflammation, consists in such a magnitude of *excitement*, as indicates that the *excitability* is worn out and ended, and the very great vigour changed into *indirect debility*; hence instead of a very great *excitement*, no *excitement* exists in the vessels mostly affected, and instead of density, extreme laxity takes place: hence the excretions, instead of being only moderately increased are augmented beyond bounds; the watery parts separating from the more fluid, without any force, without effects, but only in consequence of the inactivity of the vessels and the fluids, extravasated in all parts into air vessels, which suddenly suffocates the patient.

CARDITES seldom occurs, is not well understood, and appears generally to be a local affection, when this takes place; the physicians labour is spent to very little purpose.

purpose, and if at any time it happens connected with the general affection, it admits of no other definition or method of cure, but that of peripneumony, from which, inasmuch as it arises from the same noxious powers preceding, and is removed by the same remedies, and cannot be distinguished from it, by any uncertain symptom; therefore it should not be supposed different from it, either in the origin of the disease, or method of cure.

The HISTORY of the SYNOCHA
PHRENETICA.

THE synocha phrenetica is a phlegmasia attended with a slight inflammatory catarrhal affection of some part or other, of one or more of the limbs or fauces, with pain in the head, the face and eyes suffused, impatient of noise, and light restlessness and delirium. Inflammation does not appear externally in its proper form; nevertheless, a state bordering on it or a catarrhal affection depending on the same cause, and differing only in this, that it is only an inferior degree, appears on the limbs, and muscles, especially over the spine or round the breast, and in the lower part of the fauces.

The pain of the head, the suffusion of the face and eyes, proceeds from too great a quantity of blood in the vessels of the brain, or its meninges, distending, stimulating,

lating, exciting and contracting the vessels, so as to cause pain. To create which, inflammation is not necessary ; for without it increased action may produce such pain, because it exceeds that medium of *excitement* in which an agreeable sensation consists. The quantity of blood is indicated and also explained from the redness of the face. That this causes the pain by distention, is proved by venesection ; and whatsoever diminishes that quantity, by lessening the impetus of the blood.

The same causes an impatience of sound and light, sharpening the senses of hearing and seeing ; for, as some degree of impulse of the blood is necessary for every sensation, if the vessels are over-loaded must it not be attended with heat ? as the blood put in motion is the exciting cause ; consequently, if the cause be too great, the effect must be equally so ; but these symptoms are attended with pain, in a different degree of *excitement*, as shall be hereafter mentioned.

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The same increased *excitement*, caused by a too great stimulus of the blood and other powers, occasions restlessness and delirium. The other powers that contribute to the same, generally are intense thinking, as if it were a continual *tênor* of thought, and every exciting passion. No one, even in health, sleeps well when operated on by these powers. So that you should not be surprised that the same, applied in a high degree in a violent disease, prevents sleep. As increased restlessness is an increased action, so is delirium, the same cause remaining. What may seem wanting to the more full explanation of these symptoms, shall be hereafter delivered.

An EXPLICATION *of the* STHENIC
EXANTHEMATA.

THE sthenic exanthemata, are often the consequence of the noxious powers that usually create the sthenic Diathesis, in such a sthenic pyrexia, first, or a synocha, take place then, after a short interval, not certain by any rule blotches or spots that mark the skin follow.

The following is a strong proof, that the exanthematic disorders do not, in any thing of consequence differ from the other sthenic disorders, because, except in the eruption and the things appertaining to it, there is nothing remarkable or new in these signs; except the contagion, nothing strange in the noxious powers; and the same remedies are found to answer, both to check and cure the disease. As this is the case, yet on account of the eruption and the things peculiar to it, it was a proof of the greatest ignorance to have separated
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the exanthematic from similar disorders, and to have joined them with those very different from them in their nature. For how can any one believe since the usual method of cure removes the effect of eruption, whatever it is; that it proceeds not from the same but from a different cause, unless we are arguing with those, who think that the same effect proceeds from different causes? For truly the operation of contagion is not different to that of the common powers, but intirely the same.

Contagion is a certain matter, insensible, of an unknown nature, and, as most other things, only manifest by its more evident effects. Being caught by a sound body from the body of one affected, or from some coarser matter, as a garment, or household furniture, where it has by chance lurked; without any manifest change in the solids and fluids where it ferments and fills all the vessels, and then by degrees is excreted by the pores.

And

And as no effect follows it, except the sthenic Diathesis, the noxious powers that usually constitute this Diathesis, often precede the disease, and the asthenic cure always, and solely answers; consequently its effect should not in the least differ from the disease hitherto mentioned. Therefore the diseases arising from the former are justly conjoined with those, as belonging to the same species.

The only difference betwixt them is this, that in the exanthematic, the matter requires some time to be carried out of the body, different in different people, consequently it is conveyed out in a more sparing or plentiful manner, the more free or obstructed is the perspiration; which is suppressed, not by any spasm or any constriction of cold, but by the Sthenic Diathesis on the surface of the body; as is clear from this, because cold, by its debilitating operation, by affording a free passage for the matter, clearly restores perspiration. That it produces such effects,
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not by removing spasm, but by lessening the Diathesis, has been demonstrated above. As the way for the offending matter is thus set open by a free passage, so, whatever part of it remains within the cuticle, acquires a certain acrimony, causes little inflammations, and when produced brings them on to suppuration; which, by irritating the part affected, rouses up a Pyrexia and a symptomatic Phlogistic Diathesis, which is not to be confounded with the Idiopathic one.

The time of eruption is more or less certain, because the operation of fermentation, being in some measure certain and equal, requires a certain time also, to run its circuit, to diffuse itself over the body, and to reach its surface, witness the effect. Now, this is not certain exactly, because, the perspiration as the vigour varies, necessarily is more profuse or languid.

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The pyrexia, symptomatic of eruption, sometimes assumes the form of a proper *Fever*, because the magnitude of the stimulus, which the eruption casts upon the whole system, begets too great *excitement*, consequently the end of the latter, is *indirect debility*.



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The HISTORY of *the* SMALL-POX.

THE small pox is an exanthema, on the third or fourth day of which, and sometimes later, little papillæ break out very small, which soon pass into regular pustules, containing a fluid, generally on the eight day of the eruption, but often later, which is changed into pus, afterwards dried and falling off at last, in the form of scales; the eruption in proportion to the magnitude of the Phlogistic Diathesis is greater, less, or least of all.

All these things just now mentioned are directed by the laws of fermentation. The number of pustules, corresponding to the measure of the Diathesis, shew that contagion, without the noxious powers constituting this, are of no efficacy to create a real morbid state, and to direct only the exterior form of the disease.

The HISTORY *of the* MEASLES.

THE measles is an exanthema, beginning with a sneezing, moisture of the eyes, dry cough, and hoarseness. The eruption of which comes out on the fourth day or later, consisting of small papillæ, very numerous, scarce appearing above the surface, in the space of three days, or later, ending in furfuraceous scales. In the progress of the Phlogistic Diathesis, the disease is violent in proportion to its magnitude, and lighter when it is absent or less evident, nevertheless so as to turn out Phlogistic.

The sneezing, moisture of the eyes, dry cough, and hoarseness are catarrhal symptoms, and consequently depend on a Phlogistic Diathesis. Which inasmuch as they appear, and are perpetual four days or more before the eruption, that is to say, before the matter seems to touch the part affected, and from thence the Phlogistic Diathesis is to be supposed to follow

low after the noxious powers, which are accustomed to constitute it, and not the morbid matter, in this case, and to be necessary for the measles. Which, altho' it should be denied, and it be contended that these symptoms proceeded from such matter: Nevertheless it is to be admitted that it differs nothing from the other Phlogistic diseases, but to be equally placed in a Phlogistic Diathesis, and yield to antiphlogistic remedies; and because the matter brings along with it the same event, which the usual noxious Phlogistic powers do, thus it is altogether the same, and the cause of the disease as allowed to be. From whence there is nothing new in the intention of cure, but what is common to this with the other Phlogistic exanthemata, that time must be given to the matter whereby it may be expelled out of the body, and provision made after the same manner for the perspiration, as the Phlogistic Diathesis in other respects is accustomed to be treated.

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The eruption admits of the same method of cure delivered, the disease is violent, when such a Phlogistic Diathesis precedes it, but when this is slighter the disease is light also, which thing besides confirms how the operation of the contagion does not differ from the noxious powers accustomed to constitute such a Diathesis.

When the Diathesis by increasing suppresses perspiration, the eruption vanishes often for a time, as if it went to the interior parts, which danger is mostly threatned in the end of the disease, and shows that the matter kindles up a symptomatic inflammation, after the same manner that the variolous matter does on the surface of the body. Hence often the lungs are inflamed with other *viscera*. Which inflammation is said to be symptomatic, because the acrimony does not depend after the manner of the *Idiopathic*, on the common Diathesis but of the matter, one time attacking one part, and one time

time another, the effect of which excites also a symptomatic pyrexia, which is to be distinguished from the *Idiopathic*.

The HISTORY of *the* SEVERE
ERYSIPELAS.

THE Erysipelas is a phlegmasia always beginning with a pyrexia attended with an inflammation. Which when seated in any external part of the body, often in the face, sometimes in the neck, is red of an irregular margin, swelling a little, spreading and as it were burning.

There is a property peculiar to this inflammation, which is different from the other common sthenics which name has been given to all those depending on the sthenic Diathesis to distinguish them the better from the others, viz. this property is to occupy the mucous system. Why that

that should happen, it is of no importance, since this does not differ from the other phlegmasiæ, neither in the operation of the noxious *exciting* powers, nor in the operation of the remedies.

The cause of the redness, of the inflamed parts, is the superabundance of blood in the inflamed vessels; for the question, of the more or less red inflammation, as it touches not the nature of the disorder, is of no consequence here. The place inflamed swells less, because there is a free space between the cuticle and the skin, by which means the fluid concerned is diffused. This is the cause of the spreading of the inflammation, and irregularity of the margin. The burning sensation arises from acrimony brought on by stagnation.

This inflammation is not more dangerous in the face, than in any other place, except in a great Diathesis, on which it depends, causing the inflammation to be
great

great in proportion. In which case whatever part is inflamed, the disorder is to be judged off from the great Diathesis, but still more so from an inflamed face, if attended with great inward disturbances.

When such a sthenic Diathesis, and its dependant, an affection of the head, takes place, no disorder is more dangerous, none more rapid, nor sooner bring on a dissolution. On the contrary in a mild Diathesis, no disease is less dangerous.

The HISTORY *of the* RHEUMATISM.

RHEUMATISM is a phlegmasia, taking place in a temperament inclining to the sanguineous, in consequence of heat succeeding the application of cold, or so alternating with it, as to stimulate with greater power, attended with a pain near the joints, especially of the larger ones,

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ones, and corresponding to the magnitude of the Diathesis. In which the inflammation always following the pyrexia.

A sanguine temperament, consists in that state wherein sensibility, and the powers of body and mind, are easier excited by a given quantity of stimulus, than in any other, which depends on accumulated *excitability*. Hence all the other conditions being the same, younger persons, the sum of whose original *excitability* has been less exhausted than that of old people, possess this temperament in a more exquisite degree, but as any temperament is seldom unmixed, so this is seldom pure in a rheumatism. This is confirmed by the application of stimulating powers, in the highest degree, constituting this disease by a Phlogistic Diathesis, in a person of any temperament: And the more so, because whenever this temperament is unmixed, as is the case in the hysteria and phthisis pulmonalis: the disease arising thence from
stimulating

stimulating powers, inclines to *debility* rather than strength: and also the *rheumatism* never happens to people that do not possess this temperament, without violent stimulants, which necessarily bring on other Phlogistic diseases, but never *rheumatism*.

External temperature proves hurtful, after the same manner in this case, as has been explained in page 24, Vol. II. and 27.

The pain is violent in the places mentioned, because the inflammation, or the more increased part of the general Diathesis affects these parts more especially. And thus happens on this account, because the temperature mentioned, which is the most powerful of all the noxious powers, is directed only to that part. Inflammation is not transmitted to the interior parts, because the same noxious power does not act on the interior in the same manner, these parts maintaining most commonly an equible temperature,

independent of all external changes. Cold, as is the general opinion, does not do hurt here by astringent, because the disorder rages mostly after the application of heat, whose operation is opposite to that of astringent, which is confirmed by the noxious effects, which always follow stimulating food; and also by the utility of abstinence in this disease; which also refutes the error that attributes more harm to temperature, than it really affects, and more advantage to sweat, than it really does; as if all the other noxious powers were of no signification; and as if the other remedies were of the same. In this, as well as in all other Phlegmasia, the general Phlogistic Diathesis alone constitutes the disease, and the solution of this Diathesis alone constitutes health, which is very clearly proved by the inflammation in this disease, which exist very often single, and in both cases have nothing common with the Phlogistic Diathesis, in which all the disorder is centered. We should remember that these are local affections,

fections, or belong to a general disease of a different nature, viz. the rheumatalgia, which shall be hurtful considered.

Why the larger joints are affected in this disease, and the smaller in the gout, I shall endeavour to explain when I come to treat of that disease.

The rheumatalgia, which is an asthenic affection, is not to be confounded, as has always been the case till now, with rheumatism, which is a Phlogistic disease.

The E R Y S I P E L A S
Of the M I L D E R K I N D.

THE definition, as well as the explanation given above of the severe Erysipelas will suffice to explain the mild one; yet in such a manner, as to let us understand that both from the noxious antecedent powers, as well as from the

symptoms and the whole cause, this latter is much more lenient than the former, as also the disorder in the first place, is not so severe.

It does not often so much follow the cynanche sthenica, commonly called cynanche tonsillaris, as it attends it when not yet ended. It often happens alone, without the latter arising from a similar mildness of the noxious powers, and is attended with a less degree of symptoms during the whole course,

Even from the same powers in men in the same state of the noxious powers, at one time the erysipelas, at another the cynanche, that the catarrh arises without any distinction, and these same are cured by the lenient asthenic method of cure.

The HISTORY of the
CYNANCHE TONSILARIS.

THE Cynanche Tonsilaris is a phlegmasia, wherein the inflammation attacks the fauces particularly the *tonsils*, but never goes before, but always follows a pyrexia. These inflamed parts are turned and red, the pain is always increased in swallowing, particularly fluids. The cause has been assigned, why inflammation attacks the place here mentioned. Which when it once happens, the same places are in danger of being affected with it, often because its seat being prominent, and not covered, are exposed to the most powerful of the noxious causes, and the vessels once distended with inflammation, and relaxed afterwards, admits of an accumulation very easily in every violent impetus of the blood.

As after the manner of other phlegmasia, the inflammation never precedes the pyrexia, for the reasons mentioned, in page 83, Vol. II. So

So if it should appear to an unexperienced person to go before it. The reason of this is, the general inflammation being often repeated, and leaving its noxious effect always in the same place. It by degrees degenerates into a local affection, which thing cannot happen without a Phlogistic Diathesis, and without a *cy-nanche* following, but conjoined by chance with the former, it may sometime precede the latter, but in both cases it is to be distinguished from a general one, by any man that wishes to guard against a pernicious error in the method of cure. The same affection in an asthenic habit, either succeeding a general affection, or otherwise becoming now a second time generally is to be referred to a disease of the other species, hereafter to be mentioned.

If you can explain the cause why the pain is exasperated in swallowing fluids, do so, but if you cannot, it does not matter much.

The

The *cynanche* œsophagea is here omitted, because the disorder is very rare, and whenever it is a general affection, admits of the same explanation and method of cure that the *cynanche* tonsillaris does. Nor does it differ, only that the inflammation is higher, and some redness only appears ; but because we ought to suspect that the affection is local, as when the œsophagia happens to be eroded, or as if it were burned by any acrid stimulus, consequently look to the distinctions made before, in page 95, &c. in Vol. I. and distinguish them in order to affect a cure.

A disease which very seldom occurs, but sometimes may be seen in certain countries, but never at all in others, is called the croup in which the respiration is affected, the inspired air makes a rattling noise, a hoarseness takes place, this cough has a peculiar and clangent noise, and the inflammation, or tumor is scarce visible, this disease attacks
infants

infants and those of tender age, all the other accounts of it, admit of doubt, of which disease, which I have not seen myself. From this the following opinion of it when it occurs to you in practice, as a Phlogistic Diathesis such as is required to constitute a disease of any great magnitude, because such a Diathesis requires a great *excitement*, it takes place less in infancy, or old age, in the former the magnitude of *excitability*, in the latter, the smallness of it not at all admitting of a great affect of the *exciting* powers, or force of *excitement*; but nevertheless neither of the two states can be said to be totally exempted from such *excitement*. In infancy the magnitude of the *excitability* makes amends for the smallness of the stimulus in old age; the magnitude of the stimulus, on the contrary, supplying the defect of the *excitability*, which may be sufficient to cause a *Phlogistic* Diathesis, not very continued, but however of some magnitude, so as to amount to a disease. By this means children experience a wonderful

derful vicissitude of *excitement* in the shortest space of time: to-day they shew all signs of extreme *debility*, and to-morrow every symptom of vigour, in consequence of the operation of the stimulus being easily raised to the highest degree, by reason of the magnitude of the *excitability*, and which soon changes to the lowest, on account of the smallness of the stimulus; hence, whenever children are attacked with a Phlogistic disease, that becomes of short duration, acute, and easy of solution, nor is an asthenic disease in them more difficult to be removed, provided there be no local affection in the case, and a proper method of treatment applied.

The Indications of the former species of disease in infants consist in very great frequency of pulse, if compared to the Phlogistic pulses of grown up people, and more frequent than their own pulses, when in health, sensibly striking the physician's finger.

The belly, in the beginning of the disease is bound ; as the disease advances it becomes looser, attended with a dry skin, heat, thirst, restlessness, strong crying, &c. The symptoms of the contrary species of disease are innumerable pulses very small, imperceptible and softly impressing the finger, as snow falls, a loose belly, with green stools very abundant, frequent vomiting, dry skin, a heat greater than natural, different in different parts of the body, interrupted sleep, never refreshing ; the screaming feeble and mournful. Besides the usual noxious powers, undiluted milk, or food prepared from animal matter, too large a use of opium, or strong drink after cold and moisture, and consequently more *debilitating*. Too great heat, strong simple solids precede the former Diathesis. Together with the well known noxious powers, the milk of a feeble morbid nurse, food prepared from vegetable aliment, and mixed with sugar or water, and watery drinks ; the practice of purging up or downward, by any medicines,

dicines, or even by magnesia, given in order to absorb acids, cold not followed by heat and weak simple solids, precede the latter Diathesis.

Consider which of these two kinds of symptoms precede or attend a cynanche trachealis, and whether its pyrexia be Phlogistic or asthenic; weigh well the different opinions which different people have given on this. Suspect their reasonings very much, but suspect their facts more. Guard against the ostentation, vanity, and rashness of the younger physicians, and the obstinacy of the older, hardened by age and by practice, which can be forced by no reason, by no truth, however weighty; scarce by money itself. And guard against a mind fettered by prejudice; remember in the instance of the *Alexipharmic* physicians, that all those of a century were in error except one,* and consider whether the present race of physicians, who follow the doctrines of the schools, are more in the

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right

* Sydenham.

right, and do not err in the other extreme, and do as much harm in *Fevers* and diseases of pure *debility*, as the former did in Phlogistic diseases, and scatter destruction far and wide thro' all mankind. Thus being guarded from error, consider the methods of cure in this disease, which have been made public. If by these, or by any experiments made by yourself, you discover that venesection and purging, or what, on the contrary, are called *Antispasmodics*; that is to say, stimulants answered, you may be assured that in the former case, the disease is Phlogistic, and in the latter asthenic, and the more certain you may be, if you observe the noxious *exciting* powers, or the symptoms already mentioned, to agree at the same time.

The HISTORY of the
SIMPLE SYNOCHA.

A Simple Synocha is the same disease with the synocha Phrenetica if you take away the affection, or increased *excitement* of the head.

The HISTORY of CATARRH.

CATARRH is a *Plegmasia*, (page 89, VOL. II. wherein besides the general symptoms a cough takes place, hoarseness and an increased excretion of the nose, fauces, and bronchia, first suppressed afterwards a little increased, and at last very much augmented, arising from the noxious stimulating powers, often from heat alone, (page 90 and 91, VOL. II. particularly after the application of cold, which may be removed by *debilitants* often by cold, taking care that heat is not applied after it.

The

The explication of the cough, is the same as has been delivered, page 95, Vol. II. Which is more free, because it exasperates and irritates no neighbouring part, highly inflamed, &c.

You may know from this, that the hoarseness arises from the suppression of the vapour, which inhales into the bronchia, because it continues very long, often almost without being attended with expectoration, &c. or at least when these continue moderate, the Phlogistic Diathesis continuing in vigour, and when this Diathesis relaxes a little, and the spitting and coughing becoming more free, the hoarseness relaxes or subsides. That this is effected by such a stimulus, as produces a Phlogistic Diathesis, is proved by exertion of speaking, causing a temporary hoarseness by silence, removing this hoarseness, and the use of cold water allaying it.

It proceeds from suppressed excretion of the mucus and exhalable fluids, as mentioned,

mentioned, in page 94, Vol. II. and admits of the same explanation as there delivered.

It appears from this, that Stimulants cause a Catarrh, because heat alone, strong drink, moderate exercise, certainly excite it, and cold air, and the use of cold water, low diet and rest certainly and effectually remove it. To suppose then that it proceeds from cold alone, and is to be removed by heat, is a great mistake.

On the other hand, cold never does harm, except when it is succeeded by the action of heat as proved before, in page 21. Vol. II.

The Catarrh, which happens so often in summer, where its cause cannot be imputed to cold in one case, out of six-hundred can be explained from heat, is never contagious very often, general and requiring the application of cold for its cure; not at all succeeding cold, but forthwith succeeding

succeeding heat, facts well known to old women, and to the commonest mechanics, in like manner to bleer-eyed people, and to barbers, I say, these facts are known to them, but unknown to medical writers, and medical *Teachers* which confirms the same observation.

How far many diseases which have been, and are counted as phlegmasia may have a Phlogistic Diathesis accidentally conjoined with them, of this, we must judge from the doctrine already delivered. And how far they are distant from the same, and are to be considered as local diseases in every respect, is to be referred to another part of this work.

The HISTORY *of the* SCARLET
F E V E R.

THE Scarlatina is an exanthema, about the fourth day of which, or later, the face is somewhat tumefied at the same time, and the skin every where effloresces, and afterwards is discriminated by large spots that afterwards coalesce and pass in about three days time, into scales like dander. Which proceed not but after a Phlogistic Diathesis brought about from some other cause, which brings on a contrary disease, afterwards to be mentioned.

The eruption coming on at a certain season, and continuing for some time, is to be attributed to fermentation, requiring after the same manner a certain period, different in different diseases, as has been explained.

The tumidness of the countenance depends on a higher degree of Phlogistic
VOL. II. R Diathesis

Diatheſis in that part than in any other equal part, with the contagious matter now coming to the ſkin. Over and above the noxious powers that are accuſtomed to conſtitute that, I ſay is ſuppoſed to increaſe.

This matter alone creates nothing of the morbid ſtate, and only gives the exterior and exanthematic appearance of the diſeaſe, and follows the nature of the Diatheſis, whether it be aſthenic or Phlogiſtic. Hence, after its application to the body, a diſeaſe, one time Phlogiſtic, ſuch as has been defined, another time aſthenic ariſes, which is to be mentioned in its own place afterwards. What reconciles both the different explications, as well as cures of different writers, maintaining different opinions, and contending diametrically againſt each other.

The HISTORY *of the* MILD POX.

THE definition of the mild pox, is the same as that of the severe, except that in the mild kind, the pustules are very few, never exceeding one or two hundred in number, except perhaps one or two.

The number of pustules and the eruption attached to them, is not caused by the nature of the contagious matter, nor is it redundancy, but by the sthenic Diathesis, as much as it is roused by the sthenic noxious powers, of which the matter does not participate. If therefore that Diathesis, and particularly in the surface of the body, be guarded against, and particularly on the surface of the same, the eruption will seldom be dangerous.

As the contagious matter contributes very little to the sthenic Diathesis, for the

reasons mentioned above, so it notwithstanding contributes something; which is proved by the frequent eruption ensuing and increasing, where the Diathesis, after the admittance of the contagion, is not increased by the common noxious powers.

Consequently, while the *excitement* is to be reduced below that which is suitable to sound health, yet there are certain limits, beyond which we must not proceed by *debilitating*.

For, where the sthenic Diathesis is very much reduced, the *excitement* is too much diminished, the eruption becomes very red, extended over the whole system, and from a spotted one falls off always into a confluent eruption, unless it be cured by a stimulating method, it will be pernicious, and is intirely unlike the eruption of the pox.

The HISTORY of the
MILD MEASLES.

THE definition of the mild measles, is the same as that of the severe kind, to which, whatever has been said of the mild pox may be applied, if immediately on the commencement of the Catarrhal symptoms, the sthenic Diathesis is dissolved, no inconvenience proceeds from their number, and the disorder proceeds in as mild a manner, as even the mild pox, when treated after the same manner.

The Catarrhal symptoms are of the same nature as in a Catarrh, and admit of the same cure, viz. the asthenic one.

The Catarrh, and the simple synocha, are void of a proper inflammation, whether common or local. The Scarlatina, pox and measles, (when these two latter are of the milder kind) are destitute of common inflammation, and shew the local one on the surface, which is of no consequence.

HISTORY

HISTORY *of* PHLOGISTIC
APYREXIA.

PHLOGISTIC Apyrexia proceeds from too great a Phlogistic Diathesis affecting the vessels, but some particular part more remarkably; particular examples of this are, mania, pervigilium, and obesity.

The HISTORY *of* MANIA.

MANIA is a Phlogistic Apyrexia, wherein the mind (disturbed) conceives false images of all things.

As far as mania does not arise from an injury of the matter of the brain, which local case sometimes happens, too great exercise of the mind, or the power of the affections violently exciting, chiefly excite it; which, nevertheless, act as more especially

especially on the brain, so on the whole body too, more or less, though a pyrexia should not follow; because, the method of cure debilitating the whole system, and other stimuli, not by attacking the brain immediately, but exciting the same disease: the most powerful of which stimuli are spirituous liquors or wine, and perhaps some things taken into the stomach, and acting these first. Of the other Phlogistic noxious powers, others alone bring on a mania less; but nevertheless, by stimulating, increase the force of the noxious powers, which the effect of the same, removed by the cure proves. If at any time poisons should create Mania, the matter of any solid part remaining unhurt, the operation of them is supposed to be the same as of the other common stimulant powers, the effect is to be judged the same, and the *Idiopathic* disease is to be supposed also the same. Which very things, if they act contrary, by destroying the texture of the part, are to be counted as the origin of a local disease.

In the mania, the heart and arteries are moved less, because food, which is the chief noxious power stimulating the vessels, is accustomed to approach less to the number of noxious powers, that which is added to the rest proves noxious, appears from this; that abstinence is found of the greatest utility among the other remedies. From what has been said, it is evident that mania is not a local but a general affection.

PERVIGILIUM

IS a Phlogistic Apyrexia, in which there is either no sleep, or an unsound one, in which the patient is troubled with false perceptions.

The same noxious powers excite sleep, which excite mania, but less in degree; which too much thought, commotion, or
perturbation

perturbation of mind manifestly constitute. That degree of thought, which affects this, is not of very great magnitude which would affect it by consuming the *excitability*, and bring on profound sleep in time; or would drive away this by means of *indirect debility*, which is foreign from this place. The measure of the perturbation of mind, as far as it excites this disease, is the same; too much of which intirely ends at last either in sleep, or produces that degree of watchfulness, which contains *indirect debility* as a cause; nor does the simple operation of these effects of mind and body, happening seldom, prove equal to the effect. Which would be thus lighter or shorter, than to deserve the name of a disease. Should the irritation return or oppress the brain greatly, it consequently would leave a noxious power, which would create a more remarkable disease. The desire of great things by this means, when danger is conjoined, the impetus of revenging vio-

lent injury, the horrou of revenge compleated, the fear of future atonements, are shewn to move the excited mind, by the examples of *Catiline*, *Orestes*, and *Francis Spira*, &c. Therefore, as often as the mind is excited by images or affections, as after a certain continuance of these and other stimuli it cannot rest and be compos'd to sound sleep, so often the disease in question is judg'd to be constituted.

Which disease, as the noxious powers mentioned in page 138 Vol. II. do not alone constitute it; for, as afterwards will appear, when the powers contributing to pervigilium, which act chiefly by debilitating, in the end, will be treated of, and consequently will be found under the other species of diseases. I say, those powers will be found to be ranked amongst the other things which tend to prevent sleep. The operation of the latter powers being contrary to the operation of these which procure such; being less in degree than those that quickly wear out the *excitability*.

Thus

Thus the remission of usual exercise, watery instead of strong drink, no banquetting beyond the usual course, whereby the stimulus of food is hindered to proceed to that extremity wherein *indirect debility* favouring sleep happens, and cold, which acts in like manner, by hindering otherwise the sum of the stimulus to exceed bounds. All these things create watchfulness, or a state bordering on sleep, whether alone or more especially added to the proper stimuli of the brain. When the powers actively stimulating (page 139, Vol. II.) by this means, no part of the sum of the stimulus being diminished, create a pervigilium; hence the cause of the Phlogistic species of other diseases page 27, Vol. II. is the same. With this the state of the body is said to be the same in both wherein any disease is situated, nor are any other noxious powers understood, but altogether the same, to proceed by the proportion of the magnitude only varying in degree which happens often in other Phlogistic diseases.

Which circumstance is also discovered from the state of the functions, from which, altho' these disorders may be said to belong to apyrexia, nevertheless the pulsation of the arteries are not altogether free from the disease. On the contrary they are more powerful than in health, or what takes place in Phlogistic diseases, and the state of *excitement* is in proportion to that of vigour and the state of the other actions, and except in such as labour under an affection of the brain is the same, which generally is the case in the milder Phlogistic evils, or predisposition to these; but if the brain in this case is more affected than other part of the body, as in mania, that circumstance has nothing unusual in it, inasmuch as it must be invariable. That a certain part is more particularly affected in these diseases and predisposition to them than in any other equal part has been before fully proved, &c.

The HISTORY of OBESITY.

OBESITY is a sthenic apyrexia, in which from sound health by high living, particularly on flesh meat, as also from a quiet kind of life, the quantity of fat increases so as to incommode our actions.

That obesity thus defined is a disease and even a sthenic one, is clearly demonstrated by the definition of a disease, page 65, VOL. I. and by the certain indications of the sthenic Diathesis, desire of food, strong action of the stomach joined to the strength of the other powers.

And as in this disease the stimulus of the *exciting* powers, raises the *excitement* above what is proper for sound health, to that in which the sthenic Diathesis consists, without which that great force of the stomach and the organs which produce both chyle and blood, could

could not exist; so it is common to this with the other disorders of the sthenic apyrexia, viz. that the sum of all the stimuli should ascend much less, than in the other diseases of the same species, viz. with a pyrexia, and an inflammation, never to an extreme degree of magnitude, whence *indirect debility* takes its origin; and indeed there is not as much as would suffice to rouse the heart and vessels to any such a height.

To all which notwithstanding it happens that these and all the other actions arise some little above the degree of those that are attendant on health, and very much above the asthenic Diathesis. The sthenic apyrexies differ in this chiefly from the other sthenic diseases, that the *exciting* powers exist within that degree of magnitude, which consumes the *excitability* very much; as we learn by their certain effect. For these disorders are much more lasting than the other sthenic ones.

Whence,

• Whence, howsoever the brain be affected by its peculiar stimuli, or its vessels by the redundancy of blood; yet unless that redundancy approaches which the other stimulant powers create nor the *excitement* arising from thence; it is evident that the common effect will be much less, and that the force of all the powers joined together, is much stronger than the force of each peculiar one when separate.

The Diathesis therefore of the whole system is in the end less in these disorders than in the other sthenic complaints; tho' the Diathesis of the part is still greater than in health as of the brain in the mania, and pervigilium, and of the sanguiferous vessels in Obesity; and the whole Diathesis is almost as great, as it is vigorous in a predisposition to other disorders, and more so in the part affected. Hence it comes that the contrary to the nature of these disorders, and in like manner for a predisposition to them, takes place and they usually for that reason continue

tinue long because the mediocrity of the of the sum, stimulating operation never consumes the *excitability* quickly, and always causes an *excitement* more than necessary. A great disturbance of the brain and vessels in these disorders does not argue a great degree of *excitement*, because a local affection compared with an *Idiopathic* one is *toto coelo* less. For however any stimulus may press on a part, and thus excite the rest of the body, yet unless the other stimuli applied to the remainder of the body, support its operation, that the sum of the operation of all may affect the whole system more highly, the effect of that one stimulus will be only conspicuous in the part, and less so in the rest of the body. In fine remember (page 80, &c. VOL. I. and page 10, 11, &c. VOL. II.) that every grievous disorder always arises from *excitement*, which took its rise from the conjoined force of many stimuli.

As in these sthenic apyrexies a certain part, in the two former, the brain in the latter ;

latter; the sanguiferous vessels are much more excited than the other parts, and in a greater proportion than in the other sthenic diseases, for this reason, because the local affection is much less supported by the stimuli not operating immediately on the other parts; so the stimuli, thus operating on the parts affected are supposed, though only in an inferiour degree, yet really to affect the rest of the system. That the thing is so, is confirmed by the absence of the asthenic Diathesis, and by such a sthenic one as manifestly in this case contains a predisposition to other disorders of this species, by the remedies *exciting* these, which will be directly made manifest, and the cure is affected by powers contrary to these, which are always noxious in an opposite disease. Whence whatever stimulus affects a part, it truly and certainly affects the whole system, because the *excitability* is one and indivisible over the whole, and even in this case where it cannot be discerned so clearly.

As to what belongs particularly to Obesity, you may know it by this clear proof that all the other noxious *exciting* powers except food, in such people are more or less prevalent, because the concoctive powers, which depend on the force of the former, are so strong, as to perform their duty more perfectly than in others, which notwithstanding are not possessed of the weakest force. Which noxious powers notwithstanding their being kept within that degree of magnitude which approaches to extremes, or very near it and finishes the *excitement* by consuming the *excitability*, or through the multitude of the commotion which exhausts the system; yet these noxious powers, I say, are very powerful or lay a great stress on the *excitability*

The affections of the mind do not stimulate much in this case. Which is commonly known by the old saying, that fat men are of a mild temper; when those that are lean are very morose. Thus fat people are not given generally to much thought,

thought, which is a great stimulus. Hence also those that are naturally fat, are averse to exercise by which the action of the vessels should be roused, and consequently perspiration would be set free, and the more so, because all motions fatigue them more than others. Hence the fluids that would be cast out through the pores of the body are retained.

Having now laid before you the properties of these diseases, since every local affection depends on the common one 'tis of the same nature, arises from the same noxious *exciting* powers and is cured by the same remedies, varying only in degree. Hence the local affection, whether it be an inflammation, or a greater affection of the brain, or of the vessels, than of any other part, yet we must not think that it is the same in one case, and different in another, but intirely the same in every case, and that they differ only in some small matters of no consequence, and that they by no means require a different cure, or

deserve capital distinctions; therefore let that error, which has totally corrupted this art, be intirely destroyed. All the diseases consequently of which we have treated, have rightly been reduced to two genus, not to the genera and species at all, as there are only two forms of diseases.

Now as in all these diseases all morbid force, whether it be considered as *Idiopathic*, or local, produces too great *excitement*, and as the remedies that cure the former, cure also the latter, nor are they ever to be applied to a part only; all this reasoning is made use of that we may be convinced that there is a certain series of increasing strength, from the most sound health, to the greatest degree of a *sthenic* disease. In which series the *Peripneumony* or *Phrenitis* are at the head, and *Obesity* at the foot.

These on the higher part of the scale are followed, nay sometimes equalled by the small pox and measles of the severe kind.

kind. The Erysipelas, attended with a great pain of the head, next is superior to them in such a manner, as to dispute precedence with them in violence. To which succeeds the rheumatism, often equal not in the magnitude of the danger but of the Diathesis. The next is the mild Erysipelas, which claims an equal place with the Cynanche Tonsillaris, but in the mildness of its nature more nearly allied to the latter than the former. These are the diseases attended with a pyrexia and an inflammation.

Two of which occupying the lowest place of the series, viz. the mild Erysipelas and Cynanche Tonsillaris, are so like to the sthenic Catarrh, a disorder void of inflammation, that out of e'm all, one cannot tell which to put in the first place, yet below these the simple synocha and scarlatina, inasmuch as this latter is sthenic, and as much as the most usual state of both is thus considered, are clearly to be so placed. The lowest place of all
in

in the series, is occupied by the gentle pox and measles of the same mild nature.

In this whole series, the titles mentioned and their names are not so much to be considered as the morbid force. For the manner of the cause which is certain, not that of the symptoms, which is uncertain and fallacious is to be considered. The investigation of the symptoms, which hitherto has been of no advantage, but of great detriment to the art, and the most copious source of capital errors, is also in medicine, as in the rest of Philosophy, that question of hidden causes is to be rejected, to be carefully shunned and avoided, and nosology is to be condemned.

Under these disorders lately mentioned the Mania, Pervigilium, and Obesity are to be placed. Below these, and above the other disorders, entire sound health is to be fixed.

The CURE of the DISORDERS of the
STHENIC FORM.

IN order that the method of curing the sthenic form of diseases may be the better reduced to practice what we have before proposed, must be applied first to the most violent Diathesis, then to the more light, and to the danger of the parts affected in such a manner, as to attend only to the powers of the remedies.

When therefore a violent Diathesis, as in the peripneumony, the phrenitis, measles, and Erysipelas gravis, attended with an affection of the head, is observed, immediate recourse must be had to the most powerful and quickest remedy, and in proportion to the violence of the disease, must the quantity of blood be taken.

No certain quantity, on account of the changes of the powers of life being different in different people, as they vary in age, sex, strength, and in the different
magnitude

magnitude of the noxious exciting powers can be pointed out.—In the puerile state, which is seldom afflicted with any of the above mentioned disorders, except the measles, and the less of the farther advanced, who are in less danger than in the bloom of youth; therefore a more sparing venesection suffices, because the cause of diseases in both ages is little *excitement*, for in the former there is magnitude of *excitability*, and in the latter a necessity of a greater stimulus or exciting power than before, because the *excitability* is much impaired.

A more certain rule to go by, in order to ascertain when a sufficient quantity of blood is taken, is an abatement of the symptoms, or a temporary removal of them. Wherefore, if after venesection, immoderate heat, hardness of pulse; if the affection of the head or lungs, if the dryness of the body, are much abated or relaxed, and a more moderate temperature, a greater softness of pulses, and a less quickness of them takes place, and the surface

surface of the body be more moist, at least less dry, if the pain be every where abated, the inspiration eased, and the delirium taken off; we may know that enough of the vital fluid has been taken, at least for a time.

In order to obtain this advantage in a strong vigorous period of life, X. or XII. ounces, but much less before and after, will be generally found sufficient: Which rule is good, but as it answers not in every case, we must have recourse to that, as the more to be relied upon, which procures a considerable remission and relaxation of the symptoms

Since a local affection depends on the magnitude of the Diathesis, consequently you must remember that there is no need of any peculiar directions for it, but such as are applied to the general disease.

This being done, and the violence of the disorder being broken, we must then

pass on to purging, the next remedy in practice. To effect this, violent cathartics must not be had recourse to, such as many formerly used, because their stimulus, attending the first operation, may be hurtful; but gentle purging, such as by neutrals, and particularly real Glauber's salts, which are great debilitants, and draw off a great quantity of fluids from the vessels: As in the last century a very prudent man prescribed these, along with venesection, every other day; so, if per-chance such a disease should attack us, there is nothing to hinder us from using them on the same day.

Purging, after a small venesection, is more efficacious to remove the Phlogistic Diathesis than any great letting of blood whatsoever alone; because, as we said before, the power thus *debilitating*, which always debilitates more in the place where it is immediately applied, operates here in many places, not only in the greater sanguiferous vessels, but in most of their terminations, and the *excitability* is more universally,

universally, consequently more equally affected, and the *excitement* is more efficaciously diminished.

Together with these remedies, we must refrain from all food, except vegetables, likewise from all liquors, except watery or those mixed with acids. Which precept does not seem so much neglected in words, as in reality and custom, because, what was thought to be slight, transient and of no consequence, as it were, has been usually given under this title of administration, in order that its efficacy might not sink deep in the mind. No stimulus is more powerful or more noxious than that caused by victuals, consequently whatsoever blood is drawn, or if the serous fluid be detracted from the bowels unless food be avoided, all these may be used in vain. From this consideration, fluid matters notwithstanding vegetable food, should not on this account be forbidden, because the watery matter retained in the system, but easily

penetrating the least vessels, flows through the different extreme bounds, and supports the strength and augments the utility of another remedy, which we shall just now mention.

Do not forget to have in view along with the first letting of blood, and first purge, as also abstinence, with water for drink, the temperature, which must be particularly considered. For if cold always, and from its peculiar operation *debilitates*, if it seems otherwise to operate, because a succeeding or alternate heat changes its effect into a stimulant one, if it alone cures the small pox, or prevents their violence, if it be the best remedy against a Catarrh, and where heat is avoided, is of great use in every sthenic complaint, we cannot doubt, but this same cold is very advantageous in disorders of a very violent sthenic nature.

Thence its operation is not different in the pox, and different in the other
sthenic

sthenic diseases, but intirely the same. Moreover as in all disorders of this species, cold alone is often sufficient, so whenever the Diathesis, as in those disorders we are speaking of rages extremely, it demands immediate help, because all delay brings on precipitate danger; because the above mentioned remedies are sufficient to remove the disorder, as we have found to be true by practice, and that cold, which would effect the same is neither at hand, or cannot be administered by every body; and its utility is too great to merit the credit of many, for these reasons we must not desist from the proposed method of cure and consult for the good of the person afflicted, by throwing off the blanket and the other cloaths, and choosing for the most part in place of a bed or squab, a cool room, and thus the magnitude of a short duration compensates for the long continuance of a less degree of the same power.

Since

Since such is the operation of cold, page 131 &c. VOL. II. as to have the power of transmitting inwardly the eruption in the measles which is falsely attributed to it, as the cause is not to be ascribed to cold alone, but to heat and other stimulants, thus *exciting* more, than if they never had succeeded it, as we have explained, VOL. I. page 67. And why not? If cold does not drive the eruption of the pox inwardly, but after enlarging the diameters of the perspiratory vessels, gives passage on the contrary to the matter, why in a similar case should its operation be thought different, nay even contrary? Is that false notion now to be refuted, which supposes that the same cause produces different effects? We allow cold lessens the eruption in the small pox. The same causes it to disappear in the measles. What then? examine the truth more narrowly. Are we to think that its effect is the same, or different in both cases? How comes it that from its disappearing you are certain
of

of its being driven inward? By what proofs will you support it? Confess the truth. Acknowledge with sincerity that these errors are the other remnants of the Alexipharmic doctrine, which supposes that heat and other stimulants assisted and cold obstructed perspiration. The error of which doctrine both in the pox and other cases, has been proved by an illustrious man*; because it did not admit of the same method of cure for the measles, and for that reason you do not admit of it, who does not depart from, nay but adheres strictly to the said error. But you can see, when the proper method of cure is applied, that the measles as well as the pox are Phlogistic. Are not all debilitants or *antiphlogistics* very successful in both cases? And as it is manifest that cold in the pox is a debilitant, or as you call it a sedative. Have we not reason to suspect that it is not a stimulant or an astringent in the measles, and that thus it repels the eruption, but that its operation is the same as in the pox. In this case
you'll

* Sydenham.

you'll contend the peculiar operation of cold, because after the eruption hath disappeared, all the symptoms become more violent. Yet consider whether this will do any thing for you, whether any thing at all, or not quite the contrary. Is a stimulant or debilitant effect the consequence of the operation of cold? one of which you seem to think. If the former, the cause of the disorder is to be imputed to it; which, as will be hereafter proved, creates a too great *excitement*, after cold and more even than if it had not been applied, if the latter people will suspect that cold is a part of the cause. But it is not so. And whenever an increased Diathesis is the result of the operation of cold, the reason is, because the stimulus of heat and other *exciting* powers was not sufficiently guarded against. Which is clear from the application of heat ordered in stead of being prohibited in your method of cure. And no wonder why. For if the cause of a catarrh has so much deceived physicians, the Catarrhal symptoms

symptoms of the measles have necessarily deceived us as is proved in the history of Catarrh and simple Synocha. And if the errors of a rejected doctrine are retained in one case why not in others?

The RENEWING of the CURE.

AFTER the application of the remedies mentioned in page 158 and 164 VOL. II if the symptoms return, the same method of cure must be re-entered on, venesection must be conjoined, purging renewed, and the body must continually be kept cool, and reduced through low diet, and all those things are to be pursued until the multitude of symptoms be abated, and health, at least protempore restored.

Whence, if the Diathesis shall seem almost already reduced, if the affection of

VOL. II. X the

the head or lungs, or of any other inward part, is already removed, and yet we are affraid of the disorder returning, recourse in this case must be had to lenient *debilitants*; venesection and purging are to be preferred to sweating, which the system will bear better than the stimulus of heat, after the Diathesis is abated or removed. Before we introduce this practice a few things must be pointed out concerning the quantity of blood to be drawn off. As in each bleeding, so likewise in the whole quantity of blood to be taken away, there must be a middle degree to that which physicians commonly have followed, thinking that sometimes a very large quantity at one time, at another a very small should be taken; and the more so, because amongst the other remedies mentioned, the cure being more protracted, there is little need of much blood being taken at once. Their age must be examined, as I said before in the commencement of the cure. The manner of living looked into, consideration

consideration must be taken of the quantity of the stimulus lately taken in, and the state of the body must be compared with the magnitude of the symptoms, and the effect of the remedies. Hence judge of venesection, &c. consider what one remedy seems to affect, and what another. In fine, you will see that there is less need of each stimulus, the more largely the others are applied, and you will perceive that the danger of too great venesection is to be avoided, and the disorder to be treated more cautiously.

As to what concerns the method of venesection, it must be made at the largest vein; because when a small one is opened it is not equal to ease the vessels and some disadvantage may attend the cutting of an artery. How to constitute any more certain rule is difficult, it will be for the most part sufficient to know that within three or four days about two pounds of blood being taken with the application of

the remedies, in a middle aged person will generally suffice.

Bleeding, as long as any of the sthenic Diathesis remains, must be followed by purging, and the other proposed methods of cure must not be neglected. But purging, which at any time brings on a fit of the gout dissolves a Cynanche Tonsillaris and mild Erysipelas, even attended with an affection of the head, is of manifest detriment in proper *Fevers*, which for the most part is evidently noxious in the *dyspepsy*, asthenia, and all kinds of disorders, consisting in either *direct* or *indirect debility*, and it is a part of that pernicious method of cure, through the whole asthenic form of diseases, which is commonly practised. The more it is to be avoided in these disorders, the more it is to be used in the sthenic ones, nor is it to be omitted in any of the less violent sort, such as those are, in which venesection is necessary, but it is to be used in the manner I mentioned,

tioned, and as I formerly discussed. The diffidence in this remedy when useful, and the confidence in it when noxious, was brought on by the spasmodic doctrine, and is to be above all things avoided, as admitted by a false and foolish principle.

As nothing hitherto has been more common in asthenic disorders, nothing is attended with greater detriment and often with immediate destruction; so, for the same reason nothing is more successful in curing sthenic disorders.

It is scarce credible to tell what a mark the odium of the *Alexipharmic* method of cure has branded the best remedies with, on account of their bad application and of their perverting the proper method of cure. Which method, not to mention other things above related; sweating which whenever the Diathesis is moderate, or when it is not very great, or does not affect a vital part, *i. e.* in all the disorders of this form, except those that are violent

violent in their commencement, of which we are now treating, is of great service, and very efficacious for health, yet has been intirely laid aside as uselefs and noxious in the cure of all these except one, and particularly after the spasmodic doctrine began to be admitted, and gradually to prevail.

But altho' except the rheumatism, which this method at least by one medicine is allowed to remove; if it from a more free or more sparing use most certainly either relives or intirely removes even the Cynanche Tonsillaris, the Erysipelas itself, and the symple synocha; if this be known even to the common people or to well informed physicians; what reason can you bring? What certain and experienced event can you advance? What eloquence are you endowed with, that you think that you can persuade every body that the same, after a most vehement Diathesis much diminished by other remedies, and already

already reduced to a very small one, to which this is suitable, is not to be applied.

You object that heat, which attends the first operation of sweat, may be noxious; for you dare not say that it is certainly so because you never tried the experiment. Tho' this may be granted in a Diathesis which threatens *indirect debility*. page 197, VOL. I. &c. and page 9, VOL. II. &c. Yet we will not allow that in a moderate one, whether from the beginning or so caused by other powers, and consequently after the method of cure was expounded, that heat will not be compensated by a great profusion of fluid from the whole surface of the body, and that after this part of the vessels is relieved from a heavy stimulus, the diminished *excitement* will be more equal throughout the whole vessels and all the genius nervosum. If the great number of vessels tending towards the intestines, towards the stomach, when emulged so powerfully diminish the Phlogistic Diathesis. (as mentioned in page 167, VOL. II.) How comes

comes it that in the perspiratory vessels a similar evacuation is not proper? To which reasoning if the circumstances just mentioned, be conjoined what have you to say at last against the use of sweating, when heat not greater than necessary, attending its operation can no longer be noxious but may be very useful? Object your certainties, your reasonings.. Turn yourself into all shapes possible, you can never find any solid objection against this remedy. But whence all this? Will there never be an end of thus flying from one extreme to another? Will there be no medium found to the *Alexipharmic* cure, but what is also bad or even worse? If physicians during a raging peripneumony, are not affraid to prescribe sweating by the most stimulant medicines, will your method of cure not admit of its application, and that by the most mild ones? If Sydenham, in curing sthenic disorders, prohibited heat, because it certainly increased the *excitement*, is a moderate and salutary degree of it to be avoided

ed &c. page 43, Vol. II. If you are ignorant that more things, more powerfully diminish the *excitement* than one only. Supposing we pardon you in this ; must we also pardon you, because like an Empiric, you do not see that some things are useful and others the reverse, for which not wit, because we would not require it of you, but only common sense is requisite? If without any predecessors to think and invent something would be too much and not to be expected from you, must not we think out of a thousand that treat on all the parts of medicine, and some in one opinion right, or wrong in another, and some of another opinion, that you have said nothing but continually kept in the paths of one man, that you, I say, are not worthy of admiration.

We must not therefore in this part of the intention of cure, after the above-mentioned administration promote sweating; even tho' something should seem

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wanting to perfect health, by a little of the sthenic Diathesis remaining, or if sweating comes on spontaneously.

When the symptoms of such sweating are perceived, nothing else is requisite, except to apply woollen to the body, to give warm drink, to avoid cool air, to sweat a sufficient length of time X. hours at least, or even XII. If by this means it flows in a plentiful manner from all parts of the body all medicine will be useless. Which sweating, after it has subsided in part, yet should it not have answered the ends expected, Dover's powder must be administered until the intention of such is fully obtained. Along with which administration, cold water is sometimes added, and the body kept well covered, but the use of warm drink is often found more useful. And as in diseases of this sort, to which this method of cure is applicable, so it should be used in others, when the mediocrity of the Diathesis obtained by the
other

other remedies will admit of it. Thus in the measles, it is often found useful, but it must never be immaturely used. Should heat be found hurtful it must be laid aside. For we do not prescribe many things in our method of cure, at the same time, and nothing but in order that the *excitement* may be more equally supported throughout the whole system.

In all the cases of a vehement Diathesis whatever has been mentioned, are to be put in practice more or less, and some in a different degree, according as the remaining force of the Diathesis requires an increase or a weaker application, and the whole course of the method of cure is to be enlarged according to circumstances.

Besides these things there are some remedies of less consequence, as acids and nitre, some of an uncertain kind, such as bleeding by leeches, by cupping, and drawing of other fluids, yet they are mentioned, as of moment, particularly the acids, in-

asmuch as they render drink agreeable, and though the lungs are affected, yet they excite not a cough, and as they are cooling, the more they are desired, the more they are to be admitted of. Remember that nitre possesses a less cooling force than what has been thought.

Let us pass on to the other part of the intention of cure, where the Diathesis is more mild, as in the other Phlegmasiæ, and such sthenic affections, and the mild pox and measles, as also the Scarlatina, in which a less force of a *debilitating* power is required, consequently proper practice requires neither all the abovementioned remedies, nor as much of each of them, as in the cure of the more violent sthenic diseases.

In all these cases, the rheumatism not excepted, which arises from a very great Diathesis, venesection is not at all necessary, and if we expect it, a more free use of
it

it would be still more noxious in those of a less Diathesis. For where the *excitement* is not very great, on the contrary moderate, and scarce exceeds that degree which creates a predisposition to the more vehement disorders, there under the name of a medicine to use a very *debilitating* power, against a less violent disorder, as it were, would be very wrong; and as venesection, is chiefly used in order to prevent a too great *excitement* passing, on to *indirect debility*, or death. There is no necessity for it here but the reverse.

The lance is not to be used, not only in diseases of *debility*, which are of another form, in most of which it has been, and is the custom, to draw off more or less of the vital fluid, but even in disorders of this form, except the more vehement ones.

In the rheumatism, although the Diathesis be often great, yet the usual quantity
of

of blood is not for this reason to be taken. For as every Diathesis is always found greater, in some one part than in another equal one, so the same is to be said of the sthenic Diathesis, in this disorder, which is greater on the surface than on any other part. The reason is, because heat, the most active noxious power, succeeding cold, or so alternating with it, that the stimulus might be increased by its effect, directs all its peculiar force to the surface of the body. Hence after much bleeding, the disorder often returns more obstinate. The reason of this is very plain, after understanding the principles of this doctrine. Venesection lessens the sthenic Diathesis chiefly in the capillary and perspiratory vessels disposed in the tract of the muscles, the consequences of which are evident. This explication is confirmed by the certain testimony of Physicians often complaining that their delightful remedy is vain, viz. venesection.

For

For which reason sweating, which we spoke of, particularly belongs to the cure of this disorder. To which immediate recourse must be had, the Diathesis becoming vehement, characterized by heat, pains particularly in the night time, and a hard and strong pulse; first taking XII. ounces of blood away, and observing the same plan, I proposed, in point of temperature and victuals. Which sweating, that it may the more freely flow from the body, and continue the longer, is to be excited by Dover's powder, and to be kept up for about twelve hours, then abated by degrees till the abating of the symptoms, and if the return of these is found, it is again to be excited in proportion to the same. The remainder of the cure is to be committed to other remedies and particularly to an exact temperature and low diet.

In the simple Synocha, Scarlatina, Cynanche Tonsillaris, Catarrh, Erysipelas and also in the mild pox and measles, Sweating, bleeding and purging, are to be used,

used, only in proportion to the violence of the Diathesis; (see page 93, &c. Vol. II.) the patient same time using only a spare diet with diluted drinks and keeping up tranquillity of mind as much as possible. The Diathesis is often so mild that the use of one or other of the remedies will be found sufficient. That is very moderate where the horrou, languor and heat, are but trifling, particularly in the beginning. The disease may also be judged of from the state of the organs whether voluntary or involuntary. Where the force of the stomach remains sound, it is a proof of moderate *excitement* throughout the system. In a mild disease often a purge of Glauber's salt will be found to remove it, and without this, cold, rest, and abstinence have often brought back the morbid *excitement* to a salutary one, or often without such cold abstinence and rest will reduce such a Diathesis. A thousand times have the Cynanche Tonsillaris the Catarrh, and the simple Synocha, nay even the Erysipelas itself attended with an inflam-

inflammation of the face, been thus removed. Nor does the Scarlatina, tho even so violent prove too powerful for this same administration.

During the cure, the proportion between the magnitude of the *excitement* and of the Diathesis is to be particularly attended to, and all other distinction to be laid aside. For as under this sense the simple Synocha has been above distinguished from the phrenetica, the mild Erysipelas from the severe. So it often happens that the Catarrh arises to that height, as to threaten us with, or actually bring on a Perpneumony, and that the latter is much more lenient than usual, In which cases no respect must be had to other distinctions, but the magnitude of the *excitement* alone should be the rule of the Physician.

Another very useful admonition is after having diligently considered the principles, to judge prudently of the state of the pulse and of the temperature. The

pulses in all sthenic disorders are moderately quick; to this is joined hardness and a certain fulness. Whenever therefore they are very quick, we may suspect that the sthenic Diathesis is passed over to the asthenic one, and the too great *excitement* into a contrary state, or that the disorder was asthenic from the beginning. In order to take away this doubt, and ascertain the truth, the noxious *exciting* powers, the habit of the body, and the age must be considered, or whether any contagious matter, was the forerunner or not. Heat of the skin is common and uncertain to these disorders, and *Fevers* of a quite contrary mark; which heat, as it depends on the perspiration being obstructed, both to the sthenic and asthenic diseases, it must be remembered that in the one it depends on *debility*, and in the other on vigour, in order to ascertain with more certainty which of these it arises from; the other symptoms, and the noxious *exciting* powers, are to be attended to. In order to know with more certainty,

certainty, what this symptom arises from, the other symptoms, and the noxious *exciting* powers, are to be inspected. In fine, the only way to know whether the *excitement* be redundant or deficient (see page 12 and 20. VOL. II) is to be ascertained from the common symptoms; and we must not judge rashly from any peculiar form.

Having compared the above mentioned marks with all the others, and with the Diathesis, prepare for the antisthenic or stimulant method of cure. The more violent sthenic disorders, such as I mentioned first can scarce be mistaken. Which as they are easily discerned from their almost similar, viz. the asthenic, so, if this distinction should seem to any one doubtful let him observe that venesection is to be used not even in sthenic complaints of a mild nature (see page 175 &c. VOL. II.) much less in the asthenic ones, to which a *debilitating* power is so hurtful, and thus from being warned, let him understand that a method reverse to the

noxious powers will be thus free from error and mistake. For if there be a Diathesis, tho' sthenic, yet of a mild nature; an inconsiderate venesection will often throw it into a opposite disease and will always be useless. If on the other hand, a disease should deceive us from a sthenic appearance, and yet during its course should shew itself to be an asthenic one; in this case whatever blood has been taken, will serve only to increase the disorder. Yet this pernicious method of cure is daily practised. Which sends so many to the grave, and is an eternal plague to mankind.

As hunger, cold and purging are sufficient to check the violent Phlogistic state of the small pox, so whenever this method is neglected, and the eruption confined, there this state takes place, and a trial must be made of as many of the remedies mentioned as are necessary. Sweating is but for this reason to be avoided; because the stimulus attending it, by increasing the sthenic Diathesis in the skin, contributes
to

to obstruct the perspirable fluid, to detain the contagious matter under the cuticle, and to increase the pyrexia, hence the symptomatic inflammation commonly called the secondary *Fever*. This intention of cure is taken from the above mentioned symptom, and does not at all contradict the precepts here delivered, (see page 158 to 163, Vol. II.) although sure practice has proved that the above mentioned remedies are sufficient for removing such diseases, yet before the eruption, nothing militates with the practice of venesection, and sweating, which are proper in this, as well as the other sthenic complaints. In fine, as low diet, cold and purging so surely correspond, so the other remedies that destroy the sthenic Diathesis, are proved to have the same effect in this case also. Which we must say is a proof of the consistency of these principles; nor are we to think the small pox different in nature from the other sthenic disorders attended with pyrexia, except in the eruption &c. requiring a determined time to run its course

course together with the cure. (see the history of the small pox)

Whenever, as in the gastritis, enteritis, nephritis, cystitis, hysteritis, hepatitis, (VOL. II. page 123) the sthenic Diathesis is accidentally conjoined with a pyrexia, which has been excited by the operation of stimulants, of acrids, of compression, &c. or by any of the before mentioned noxious powers, operating on any sensible part only. I say, this Diathesis, because it exasperates the pyrexia, is to be cured by proper remedies, viz. *debilitants* which we have lately pointed out.

Together with these remedies now mentioned, peace, and tranquillity of mind must be observed during every part of the Diathesis as much as possible and that in proportion to the magnitude of the Diathesis, and the more so, if the stimulus of thought and of the affections of a more violent nature, be principal agents in keeping up the disorder.

In

In the mania therefore and pervigilium particular attention must be had to this precept. In the latter intense study, and commotion of mind, especially at late hours, must be avoided; dull books are to be read when alone, passion, revenge, remembrance of beloved objects, or former crimes (page 140 VOL. II.) must be avoided; and various stimuli, which by their extreme operation, waste the *excitability* and induce sleep, such as exercise, strong drink often taken, but in small quantity, moderate supper and lastly heat are to be used, which bring on *indirect debility*.

This point of so much moment to the confirming this doctrine, is evident from the same remedies being salutary in mania which are so in pervigilium, but in an increased magnitude. Thus it is not peace and tranquillity of mind, both which are here destroyed, but a state contrary to these is induced; hence the disturbance of mind, and the enormous vigour of thought are to be combated,
and

and as a too great force of the mind is a very unhappy state, so fear and terrour must be used; the insane are to be operated on to despair.

In Obefity avoid animal food and use proper exercise, keeping up a due degree of perspiration, but not so much as to induce *indirect debility* &c. In fact the common method of cure must be put in practice that the too great *excitement* may be reduced to a salutary state.

Consequently less food, which in this is peculiarly noxious must be given, and more exercise undergone. These are generally sufficient for the cure.

The best method of diminishing food is to join vegetable matter to the animal sort. The next is to abstain from the latter and eat more plentifully of the former. The first of these is more proper for those who are predisposed to disorders of *debility* such as the gout, dyspepsy
from

from a long habit of luxury, asthma, epilepsy, and other diseases of the same sort. The latter answers only for those, who are predisposed to sthenic pyrexies, being also vigorous, and in the bloom of life. Yet this is not to be followed in this condition of the system unless for a time, because so great is the force of this power in *debilitating*, that while it is sufficient and even more than equal to the cure of Obesity, especially when accompanied with exercise, yet it is so peculiarly fitted for causing the asthenic Diathesis, and all disorders depending thereon, that too long and liberal a use of it might be dangerous.



The ASTHENIC DIATHESIS.

BEFORE the perturbation of the functions, which only comes on at the very commencement of a violent disease, all the senses are more dull than usual, the voluntary and involuntary motions are performed with more difficulty or are more hardy, the acuteness of the mind is less and the sensibility and affections become more languid. That the heart and arteries languish, is evident by the pulse; the extreme vessels on the surface of the body, are also in a state of weakness, as is manifest from paleness and dryness of the skin, and from the diminution of humours and drying up of ulcers, and from the perfect absence of the Phlogistic Diathesis, which may produce symptoms very similar to those of such a Diathesis; imbecillity clearly evinces horror of the muscles, and the want of semen or milk, the defect of internal secretions. The impotence of the
digestive

digestive organs, is manifest from the want or desire for food, from loathing of the same, and from sometimes being thirsty, troubled with sickness, vomiting, weakness of body, and evident want of blood, In this Diathesis, whether as yet consisting in predisposition only, and, not yet arrived at that height which constitutes a disease, the faculties of the mind are also clearly diminished. Thus both our corporeal and mental powers are diminished.

The ASTHENIC DIATHESIS.

Illustrated from the explication of the
SYMPTOMS.

HORROUR is no contrary symptom, of the more greivous asthenic diseases, whenever deficient perspiration, its cause, takes place. The cause of this defect here is, from the weakness of the

whole system, that imbecillity of the heart and arteries, by which they with difficulty propel their fluids to any part, and with more difficulty still, or scarce at all to the extreme vessels. Hence perspiration is suppressed. The same explication may be given of cold, when it is attended with horreur.

In asthenic affections the pulses are weak, soft, small, and very quick. This softness, whenever it is perceptible through its smallness, as likewise this smallness arises through want of blood, and this also springs from the deficiency of animal food and too great use of vegetables, or victuals, defective in quantity, whether of one or the other sort during the time of the predisposition.

I say, the cause of the debility and great quickness of the pulse is the defect of food and all the other stimuli, as strong drink, exercise of body and mind, and scarcity of blood.

Since

Since by degrees the redundant *excitability* can only be worn out, and strength repaired ; therefore if at any time the pulses grow fuller and harder sooner than what is natural ; and ease is not got in proportion, that is a bad sign ; and arises from a too stimulant method of cure being attempted through too violent exercises of body or mind, or too great a use of stimulants, particularly of those that are highly diffusible which will bring on *indirect debility* or an asthenic Diathesis, whether used by people labouring already under *direct debility*, or, otherwise, that is, whether in sound health, in a state of propensity to disease, or in disease itself,

The same defect that induces a paleness of the skin, prevents also perspiration, viz. the *debility* of the heart and arteries. Hence a sufficient quantity of blood is not driven to the surface of the body.

The headach, which is a very frequent symptom of asthenic affections, as also
pain

pain in the joints, which is less frequent, arises from want of blood; for this is the effect of it not distending the vessels; and as a moderate distention, such as is usual in sound health, creates an agreeable one, and whatever is above or below this, produces a disagreeable sensation, therefore pain takes place here. But much less is inflammation to be suspected here to be the cause of the pain, than in a Phlogistic disorder; because not only pain, but even delirium itself, so easily yields to stimulant remedies; which would not be easily done, if so tender and sensible an organ, and so necessary for life, should labour under a grievance so powerful to destroy the texture of the part affected.

Nor can begun delirium be well imputed to inflammation, for the same reason, which on the contrary is to be attributed to a scarcity of blood, and to the defect of other stimuli; nor is this to be doubted; for all stimulant remedies,
which

which are of little use towards filling the vessels, so happily and so soon destroy all asthenic delirium; and when after the violence of the disease is overcome health is brought back and established, by sufficient nourishment and the operations of the mind restored to a sound state. I say, the effect of those remedies in this case prove the truth of our assertions.

Thirst and heat, which characterize asthenic no less than Phlogistic diseases, nor are they less frequent signs of them, arise from the asthenic Diathesis, operating in the fauces and the whole system; here obstructing perspiration, there the excretions of saliva, exhalable fluids, and mucous matter, on account of the *debility* and relaxation of the extreme vessels. From thence the jaws lubricated with undue humours, burn with thirst. Hence when the perspirable fluid is retained under the skin, heat is accumulated along with it, which is usually, in free perspiration dissipated in the air, in consequence of which
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the system remains almost in the same degree of temperature always. But heat receives little increase from *excitement*, or, as is usually termed, from the principle of life, since it happens both in Phlogistic Diathesis and in *indirect* as well as *direct debility*. But the *debility* of the vessels in the surface of the body, under which the covering of the fauces and that part appropriated for the passage of air, are comprehended, is a part of the consequences of that of the heart and arteries, and this latter also of the whole system.

Thirst is much more frequent and troublesome in asthenic, than in sthenic diseases, and is a more intolerable affection. A loathing of food or want of appetite, are the forerunners of this state and its successors are sickness, vomiting, often acute pain of the stomach, and other various complaints. The explication of which shall be our next business. Want of appetite and loathing of food, depend on the *debility* of the whole system; as all the anti-
cedant

cedent noxious powers which cause that affection, by their *debilitating* power testify; as also by this, that the remedies which act by stimulating and strengthening, check the violence of these affections; as well as cure them. The cause of a good appetite is the strong and sound contraction of the fibres of the same, by which digestion is kept up, as also the action of some fluid, such as the gastric juice, or saliva, for the effect of which a considerable degree of vigour is necessary in the stomach. But in case of *debility*, none of these things can take place; the fibres are not strongly contracted, the vessels do not pour out their extreme fluids, received victuals into the stomach are not digested, when they are expelled by the stomach, but most part of them remains unchanged. Hence food is not desired, nay, in a violent disorder, it is even rejected.

Thus has thirst been explained, and thus must sickness, which, depending on

the same cause, as a higher affection, be accounted for. For where the powers are vigorous, there is a most agreeable and pleasant sensation, as well over the whole system, as about the stomach, and the parts bordering upon it, but quite the reverse, in those asthenic affections.

As for vomiting, it is more intolerable than all these grievances put together. For such is the *debility* and laxity of the fibres, in this case, such the collection of dirty crudities, together with the corrupted air, in such a state attending the distention of the stomach, that the oppressed fibres are unable to perform their usual motion, commonly called the *Peristaltic*. And as this motion, whether in good or bad health is directed by a stimulus to a contrary part; when the stimulus is from the mouth, it is driven downwards, when from the stomach upwards; so filthiness and air being evolved, of which we spoke operates as a local stimulus, and the motions it excited, tend upwards, which inverted motion can never be agreeable, as
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being contrary to nature ; hence sickness before vomiting. This motion always continues violent for a little time, because the local stimulus excites the muscular fibres into violent and enormous motions ; hence rises vomiting, and other asthenic Symptoms.

Spasm, is the cause of the pain in the stomach, in the intestines or any where else, whether inwardly or externally in an asthenic Diathesis, which is the result of the fibres in the organs of involuntary motion being relaxed and destitute of tone, through the *debility* common to the whole system, along with the distending matter. The offending matter in the stomach, hard fæces in the intestines, or extricated air in both ; is the fordes, whose effect in distention does not so much depend on itself, as on the laxity of the fibres, which it distends. For the distending force that oppresses such fibres, is resisted and its distention opposed by powerful ones and those that contain real vigour. But when they are relaxed,

of which sort we are here speaking, the more they are acted on, the more they give way, until after having lost the power of alternate contraction and relaxation they remain immoveably contracted. Which in the former state is a consequence of that property of the muscular fibres with which they contract when under such circumstances, not like common elastic matter after the extending cause is removed, but even if such should continue. During this operation, this air causing the sensible fibres to undergo a certain, degree of violence, hence pain. A proof that more is to be attributed to the laxity of the fibres than to the distending matter in this operation, is the variation of the tone and density by stimulants, for they correspond with the greatest exactness one to another, as depending on the same cause. Whence it comes that contracting themselves in a sound state ; and powerfully acting against one another, when the peristaltic motion is restored, they expel the matter that still remains, and which continues to distend, they

they expel it, I say, by the anus, without any other assistance, as has been lately found out.

Thus wine, spices, volatile alkali, and the preparations of opium, have the power of increasing the expulsion of such like matters, without either vomits or clysters, in a very short time.

Pain, which affects so often the exterior parts of the body in asthenic complaints, depends also on *spasm*, yet not conjoined with distensive matter. In other cases a power, not material, makes exertions, viz. a certain attempt of the will to move the member affected. By this, as well as in the other case, that is, that of the peristaltic motion, which is an involuntary one, beyond doubt, by distention *spasm* is excited, and often with very great pain. Whence, as the effect is the same, viz. *spasm* it is to be attributed to *debility*, and to be removed by the restoration of vigour; the cause therefore must necessarily be the same, and must also be placed

ed to the same account viz. to *debility* with an effect entirely depending on distention, and having an equal force with it. Thus from known effects we may often safely ascend to unknown ones. Pain, of which we are speaking here, regards the *spasms* of the muscles. But there is another pain less local, more diffused, and equally troublesome which is not caused by *spasm*, but by another local stimulus, equally arising from *debility*, equally increasing it, and attended with the other signs of the same, and hastening on death by further *debilitating*. This arises from a mere acid which sometimes domineers with great *debility* in the alimentary canal, of this chiefly the cholera and all the affections of the primæ, which are attended by vomitings and loosenings, are proofs.

This acid is not the source of the cause, but a symptom coming on when the disease is formed from its cause, *debility*, and arising from thence, with
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the other symptoms become powerful is destroyed by the same remedies. This same, does not cease to increase the *debility*, whether in the *primæ viæ*, or in the rest of the system, proceeding from the peculiar cause of the disease, and extending the force of the same to the whole system, but chiefly in the part where it more immediately resides.

But although the produce of *debility* belongs to the same source as *spasm*, there is no need of any method of cure either to change it or cast it out except the common one. For as it begun, so it continues on to depend on the common cause, and whatever appertains to the cure of the rest of the symptoms, do the same with respect to it. For which, as in the cure of *spasm*, stimulants, not vomits and clysters, nor any other debilitants are requisite. As in a convulsive state the acid above mentioned causes inward pain, in the organs of involuntary motion; so it produces outwardly or in those

those organs whose motions are voluntary, something of the same nature. And as no matter there corresponds to the distention, so none here corresponds to the pain. Moreover as each *spasm* of the muscles represents the spasmodic cause and particularly that in the Tetanus; so each convulsion represents the convulsive cause; and above all others the Epilepsy. In fine reason proves that the external and internal cause is the same, so the same proves that from a known effect to an unknown cause the truth is often discovered.

The simple course arising from a very slight want of food causes this most grievous affection, viz pain, to return to the place we deviated from pain when arising from no defect at all, in point of victuals, &c. but from other sources, causes often a spasmodic or convulsive pain. First for the reasons above mentioned, food is not desired if it tends to *debilitate*, and if it be wanting food, I say, such

such as flesh broths, for example, is held in contempt; secondly, if likewise no stimulants are applied, he becomes thirsty, and cold things the most *debilitating* of all are eagerly desired to quench the thirst, will be preferred and swallowed before all the delicacies besides. Which is succeeded immediately by sickness; and if not relieved by a diffusible stimulus, such as a glass of liquors, immediately proceeds to vomiting, and in which case if one glass is not sufficient a second and third must be given, &c. When the affection is a little more grievous, an acute pain arises in the stomach during vomiting, just as if a dagger was cutting it transversely. And if the affection is still more grievous, by the cause still acting more violently, he suffers all kinds of punishment, his headachs just if it was struck with a hammer particularly in his head. As the disease which is not immediately communicated to the intestinal canal for the most part, for the stomach is mostly the seat at first, but during

the continuance of the disorder often stools are obtained, attended with great pain and twisting of the guts, but oftener which is less to be wondered at a constipation of the bowels takes place, and the peristaltic motion is inverted, in which case the patient experiences all kinds of punishment or distress, vomiting and belly-ach take place. Under the head of affections just mentioned are comprehended the dyspepsy, gout itself, diarrhea, dysentery, cholera, colic, the worms, consumption both the puerile Atrophies as they call them, and the greatest number of diseases in our time.—During the progress of the disease and by the *debilitating* noxious powers always increasing the disease, the exterior parts of the body are drawn into consent, and the organs of voluntary motion are attacked. Sometimes the legs, then the arms, and other parts are variously distorted by spasms. Sometimes the breast on all sides, sometimes the shoulders, and then the sides, with the back and neck are tortured. But what
part

part of the body is exempted from pain, not the region of the loins, liver or stomach; in which, tho' the acute pains that exist in them, and are imputed to inward inflammation, yet they really arise from the spasmodic and convulsive motions. That this is their true origin is confirmed by the use of stimuli, that often puts an end to such disorders either immediately or in a short time, and replaces sound health; it is confirmed also by the unhappy consequences attending the contrary method of cure, which prescribes venesection, different purges and abstinence, by which it returns with more violence again, as abstinence alone is sufficient to create evils, so high living hath been equal to destroy them.—These same pains as they are at one time joined with enormous motion, at another happen without it, so they are intirely foreign from those of inflammation. Which pains therefore are to be joined to the concurrence of asthenic symptoms, and are to be distinguished from others that have their

origin from a different source. Both Phlogistic and asthenic Diathesis mark their own peculiar pains. This observation is of great service to the general disorders and intirely overturns the common received methods of cure. The head-ach, that frequent complaint is to be cured by stimulant remedies and by no means to be treated with *debilitants*.

Symptoms of perturbation occur as well in the more greivous asthenic disorders as in the Phlogistic ones. Such the head undergoes in the epilepsy, apoplexy, and *Fevers*; the lungs in the asthma, the alimentary canal in the cholera, colic, dyspepsy and gout. Thus in the alimentary canal besides the pains above mentioned, there are other burning sensations, anguish, contorted, and direful punishments, which are so very terrifying to him that feels the the pain as well as to the standers by and creates a suspicion of inflammation being the cause. Which is very and always has been a difficult thing

thing for those that see such disturbance and tumult, and are young practitioners or ill informed physicians. Which disorders nevertheless, have nothing to do with inflammation, and depend intirely on the the contrary state of the system; which is proved by that. so often happy cure by stimulants, whenever put to the trial. Opium and wine when administred are proofs of the same thing, as also other diffusible stimuli, along with these broths of flesh meat and flesh meat itself and at last the usual food and accustomed manner of living with caution not to use debilitants is proper treatment. Which method of cure demonstrates that these affections are free from inflammation, as well as all the parts of a Phlogistic Diathesis. Moreover common Phlogistic inflammation, because it seems to occupy an outward spot is another proof that inflammation is not to be suspected to be the cause in this place.

The asthenic perturbation of the lungs so often tortures us with intolerable and settled pain, that in order to destroy it, no moderation is appointed for venesection, which has not only been useless, but often detrimental and pernicious ; when on the contrary stimulant remedies have always answered. The breath is interrupted to such a degree, and all that attend a proper peripneumony, are so apparent that it is suspected, or rather faithfully believed that an inflammation is present. But if there be any apparent difference between this affection and that of inflammation, that shadow of distinction does not lead us to reject our inflammation, but only brings on a question concerning its seat. But the arguments above mentioned are a sufficient proof that there is no inflammation here at all, at least not as the cause, and that it is a disease of true *debility*. By an Antiphlogistic method of cure the disorder increases, but when a stimulant is

is applied it is diminished or destroyed and that very soon.

Those formidable symptoms of perturbation, which attend the epilepsy, apoplexy, and *Fevers*, such as sleep and stupor are often false; which are called lethargic madness, &c. In the latter is observed the startling of the tendons, in the former convulsion and a diminution of voluntary motions, which have often been referred to irritation, as the lethargic madness, startling of the tendons, and partly to a plethora or else to mobility joined with it; all these without distinction are owing to that same cause, which comprehends all the asthenic diseases, viz. to *debility*. Which is testified by the *debilitating* noxious powers, which alone bring on these diseases, as also by the remedies, whose whole operation consists in stimulating, which ease and remove these very same diseases. In vain does the plethora put on the mask of an apoplexy,

apoplexy, as if at that time or period of life when the body is near-dead and blood less, viz. when the usual food is neither wanted, taken, nor digested, in which case how can more blood be expected than in the most flourishing and strong state. On the contrary when an apoplexy comes on, from a long continuance or too great *excitement* in the way of life, the solids languish, the fluids are defective and their fountain, the blood is weakened, through *indirect debility*. The same *debility* is found in the Epilepsy, the same is the cause of scarcity of blood, only it is oftener attendant on *indirect debility*. *Fevers* may consist in *indirect debility*, as in the confluent small pox, or where drunkenness was the principle cause that excited those *Fevers*; but this is much oftener *direct debility*. And in all the cases laid down the origin of the cause, and end of these symptoms, as that of the other ones, that cause perturbation, is *debility*.—Other arguments may be drawn from the multitude

titude of affections in most sthenic diseases which, tho' they really seem to arise from too great a force of the powers of life, absolutely depend on *debility*, as is evident from their being removed by the application of stimulant powers.

Of SLEEP and VIGILIA.

THE *excitability* of animals is of such a nature that it can neither be redundant nor deficient without injury to the system, redundancy causes *direct*, and deficiency *indirect debility*. Each *exciting* power extended beyond proper bounds causes the latter, and being deficient the former a great force of them, sleep and a deficiency of the same vigilia, provided they are within the bounds suitable for health, which if they exceed, opposite effects are the consequence. Sleep therefore is the effect of our daily actions at first *exciting* more, but less at each succeeding impetus,

yet in such a manner as always to add something, until that state takes place where in *excitement* necessary for vigilia no longer exists. Of which our existence is a proof, this is strengthened by the operations of all the powers which are conducive to bring on sleep. Thus heat not to extremes, or reduced from thence by cold to a stimulant degree, as also food, drink, labour, thought, the exercise of the affections (see page 66, Vol. I.) all reconcile us to sleep, provided they consist within those bounds that bring on *indirect debility*.

On the contrary cold, carried within the limits of sound health, not that extreme degree which is immediately the forerunner of death, abstinence or any matter, that nourishes little, that distends little by its *indirect* stimulus, as small drink, tea, coffee, or water especially after the use of mellow liquors, intermission of accustomed work or exercise whether of body or mind, shame or fear and anguish after disgrace, all bring on vigilia, when
they

they do not approach that state of *indirect debility* necessary for sleep. Also gluttony, exquisite drunkenness, labour of body or mind, a great force of the affections, and heat relaxing the system are known to drive away sleep, but by stimulating too violently.

As a certain degree of *debility* whether *direct* or *indirect* or partly mixed, is the cause of proper sleep, so too great a degree of it as well as lively *excitement* are its greatest enemies, when they do not approach to that height that borders on *indirect debility*. A person fatigued by his accustomed exercise is composed to sleep, immediately, which flies from one using too little exercise or extreme labour.—Healthy *vigilia* is brought on by that force of the *exciting* powers, which is equally distant from extreme *direct* or *indirect debility*. The morbid sort is generally occasioned by *direct*, seldom by *indirect debility*, and often by a mixture of both. But altho' a certain degree of *direct debility* is peculiarly efficacious in causing *vigilia*, it sel-

dom, nevertheless or scarce ever happens, without some of the *indirect* along with it.—In sthenic disorders the Phlogistic Diathesis accompanied with pain, is a cause of vigilia. When the vigilia continues as long as the *excitement* remains within *indirect debility*. But as the stimulus of pain is not the same as excites the system powerfully indeed, but mildly, yet so acting on the part as to induce *indirect debility*; therefore the latter usually soon puts an end to vigilia and brings on sleep.

In asthenic diseases vigilia is the result oftentimes of *direct debility*, the reason is, the cause of the disorder contains more *debility* in it than that which produces sleep. Thence here whatever stimulates, whatever increases the *excitement* to that point as it were, that induces sleep, is assisted by a stimulant not by a sedative power. In a small degree of *debility* where the *excitement* falls short, only a little of the point necessary for sleep, a very small stimulus is sufficient, such as a
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little portion of animal food, wine, or any other liquor of the same nature, a force of which is always to be applied in proportion to the magnitude of the cause.

Opium possesses no peculiar quality, no virtue, which is not common to it along with all the other powers. In a case of great *debility*, as in *Fevers*, in a vehement fit of the gout, disturbing the inward parts, with great pain, and other asthenic complaints of the same nature, as languor, when sleep cannot be had through the violence of the disease, after vigilia of many days standing, opium often brings on sound sleep. In which case, because the *excitability* is redundant, and therefore can bear but very little force of a stimulus (page 7, 8, 9, Vol. II.) Therefore we must begin by a very little one and proceed by degrees to more, until we arrive at the point wished for.

In asthenic diseases and those arising from *indirect debility*, when sleep also is fled; to bring this back as well as to remove

move the disease, and restore health, other stimulants are to be used as remedies, according to the magnitude of the *debility*, and diffusibles, if it be very great.

These are the times and these the conditions of the body where opium is to be used for inducing sleep. In all the other situations whether of sound or morbid health it assists the actions as well of the body as of the mind, amongst other effects it dissipates sleep and induces a lively state. Thus if any one falls asleep without a manifest cause, opium renders him wonderfully alert and watchful, it dissipates sadness, produces confidence, turns fear into boldness, gives eloquence to the silent, and bravery to cowards. Nobody in despair, and wearied of life ever killed or will kill himself if he takes an opiate, in proper quantity.* In a word through all the mediate degrees as it were of *exctiement*, opium by far is the most powerful stimulant of all the
other

other powers, and thus in a Phlogistic Diathesis it is the most pernicious; because being added to the system in this state, it not only disposes to sleep but it is in danger of bringing suddenly on those disorders from a Phlogistic state to *indirect debility*, and that unto death.

Besides the causes of sleep just mentioned there are others, where a propensity to it is morbid; as in the coma, which usually happens in *Fevers*, and in sleep to those that are feeble and weak. Of which the coma vigilia, is accounted the less dangerous. The cause is manifest. For if morbid vigilia be a sign of a greater *debility* than that which constitutes sleep, it is necessary that drowsiness or a coma should for that reason consist in a less degree of it. A proof that the coma possesses less *debility* than vigilia, is, that the former is less dangerous and easier to be removed than the latter. Of which nevertheless, when it continues a long time, or brings on profound sleep,
we

we must take care least it proves noxious by *debilitating* in another manner. In which case we must have recourse to the forms of wine and opium, that the *excitement* may be brought to a proper magnitude.

In the *gout*, *dyspepsia*, and cholic and most of the asthenic disorders that disturb the alimentary canal particularly, which effect those that are worn out with child-bearing and giving suck; sleep is often morbid and much of it of no service.—The same is the case with those that by drunkenness and luxury fall into *indirect debility*. That this depends either on *direct* or *indirect debility* is evident, because whatever *debilitates*, increases the disorder, and whatever invigorates removes the same. Did time permit other arguments might be brought to support this doctrine from the nature and treatment of diseases both of the sthenic and asthenic form.

The

The ASTHENIC DISORDERS.

THE form of disorders, which may be properly called asthenic, to distinguish it from the other one called sthenic, is a state of the living system, in which all the functions are more or less impaired often disturbed, and always almost some one is more manifestly affected. In explaining which that order will best serve by which we may gradually pass from the least to the greatest, through all the intermediate degrees, as it were, of *debility*.

There are a great variety of symptoms which, being of no import here are not made use of, to distinguish the series of disorders. Consequently, that what we have to say may appear the more certain, if not very exact, we will begin by enumerating the principal ones.

The asthenic disorders are, leanness, inquietude, madness scabby eruption, the asthenic scarlatina, the mild diabetes,
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rickets, hæmorrhæa, such as the menorrhæa, epistaxis, the piles, also an apparent contrary state to these; viz. a cessation, retention and suppression of menstruation, also thirst, vomiting, indigestion, diarrhæa, colicanodyne; puerile affections also, as the worms, tabes, mild dysentery, cholera, the angina, scurvy, mild hysteria, rheumatalgia, the asthenic cough, cystirrhæa, the gout of the strong, the asthma, spasm, anasarca, dyspepsodynia, severe hysteria, the gout of the weak, hypochondriasis, dropsy, pertussis, epilepsy, palsy, trismus, apoplexy, tetanus, *Fevers* as the quartan, tertian, and quotidian, the severe dysentery and cholera, the synochus, simple typhus, cynanche gangrenosa, the confluent pox, the pestilential typhus, the plague, and death the greatest of all.—This series of asthenic disorders is so to be understood that those which for the most part are mild, and those generally severe dispute sometimes which are more violent *e g.* The gout of the weak, the pestilential typhus,

typhus, or the plague itself, sometimes proceed with the greatest mildness.

The local affections often attending these disorders, such as ulcers, tumours, increased excretions, great discharges of blood and inflammations, are marks of a certain *debility*, which notwithstanding might happen without such.

Hence because in this series the force of *debility* is what is principally attended to, with disorders which are accompanied with those affections are often joined others not attended with any such, as the hysteric and *spasmodic* ones; and to those diseases are often joined the dropsy; Without attending to the symptoms, therefore we must chiefly have in view the magnitude of *debility*; nor is the removing the diseased state of any particular part what we are chiefly to attend to, but that of the whole system.

Of LOCAL DISEASES.

LOCAL diseases, by the order of nature are divided into five parts, of which the first belongs to organic disease, where there is no general affection of the system, none except in the part first affected. Which injury happens seldom but to the parts as they are called less sensible, or more free from *excitability*.

The second part of organic or local diseases takes place either in internal or external parts, which possess a great degree of sensibility, in which case the affection of the local injury is communicated to the whole system, here many symptoms occur similar to these, which are peculiar to general diseases.

The third consists in those diseases depending on increased or diminished *excitement* which arrive at that magnitude, that the parts being no longer *exciteable*,
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can be acted upon by no remedies, so as to remove such a state.

The fourth part belongs to those diseases wherein contagion externally applied to the body is diffused thro' the whole.

The fifth part of local diseases arises from poison applied and diffused thro' all the vessels. The consequence of which is a morbid state of parts more distant, by which the system becomes so remarkably affected.

As to what belongs to the first of local diseases of the organs, the injuries which cause them are such powers, as act by dividing the organ by destroying its continuity by gnawing or eroding, by poisoning or otherwise injuring the part, or by contusion, compression, or distention of the nerves so as to destroy continuity.

The noxious powers are whatever cuts, whatever pricks, or whatever by the force of instruments of war is driven deep into
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the body, acrid substances and poison destroy the continuity in a different manner.

When the injury received is inconsiderable nothing more is necessary than the seclusion of air and cold, and the avoiding any irritating matter.

When the surface therefore is injured in its texture, either by cutting or by the poisonous stings of animalcules, or by any kind of acrimony, or by fire applied to any part of the body; dressings that are light, mild, and oily are sufficient. The division of the Phlegmasia into phlegmon and erythema is neugatory, and misleading from the knowledge of the truth, as well in the cause, as method of cure. For altho' the cause, as they say, being removed, they differ in place, and in like manner in appearance; Inasmuch as the seclusion of air and other stimuli is effectual for the cure, it follows that the nature of all must be the same.

In

In contusion, compression, and distortion of the nerves, the remedies are mostly the same, there is need of rest here, and tepid fomentations. In all this part of the affections, a certain force of nature acts for the cure here as in universal diseases (see page 66 VOL. I.) this is the *Vis medicatrix naturæ*, so much famed by physicians, but in this case there is nothing happens contrary to what does in the cure of general diseases, for if proper remedies are applied, a cure takes place in both. If a proper method of cure is neglected, the solution of continuity degenerates into a worse affection and often afterwards into a gangrene or death of a part. Therefore nothing else happens here than what does in general diseases. *Excitability* or the property of life, whereby the actions are affected, whenever life is destroyed in the part, and in the whole body, when the external powers acting on the *excitability*, being roused by these powers, as well in the
parts

parts affected, as in the whole system, directs the state of the simple solids.

As to what belongs to the solution of continuity, all the solids whether living or dead have a common property of cohesion, and coalescing one with another. With respect to the second part of local diseases, these have been by a mistake held for universal ones on account of the confusion of the whole system arising from the affection of the part. The particular symptoms are heat and thirst, both of which are increased on taking esculent things, and by all kinds of drink, and whatever is taken into the stomach, attended by anxiety, hiccups a desire of vomiting or a sudden throwing up of whatever is taken in, the pulses in a short time becoming weak, soon quick, and rather hardish. The exciting powers are violent stimulants, or such as destroy the continuity that act by cutting, or by pricking, or acrid substances that by erosion, such as the bones of fishes, powdered glass, cayenne pepper and the like.

The

The ENTERITIS.

THE Enteritis is a local affection in which the abdomen is acutely pained and distended, and in which the whole umbilical region is as if it were twisted; attended with vomiting, bound belly, and a pulse similar to that in the gastritis.

The acute pain of the abdomen depends on inflammation, the distention of the same and the compression of the bowels are the consequence of retained fæces. The same is the cause of vomiting, by the *peristaltic* motion, being prevented from proceeding downwards, the usual way. Inflammation causes the pain around the umbilicus, because the greatest part of the intestines which are affected with the disease are comprehended in that region.

The diagnostics are the same as in the gastritis; except that in this sometimes on account of the torpor of the *peristaltic*

VOL. II. F f motion,

motion, the seeds of fruits, hairs or other foreign matters, adhere to the sides of the intestines which through irritation bring on inflammation ; this circumstance if well attended to does not contradict what is laid down respecting the diagnosis.—The cure is altogether the same as in the gastritis.

All the other plegmasiæ marked by this title, such as the splenitis, hepatitis, the real nephritis, the cystitis without a stone, the hysteritis not arising from a scirrhus tumour, and the peritonitis, do not belong to this part at all, as being diseases that if ever they be the consequence of inflammation, do not arise from the above stimulants or acrid substances, neither of which can pass to the inclosed *viscera*, for they are either not carried along by the vessels or can they be so carried, but they proceed from the reliëts of other diseases of which I shall speak hereafter, with the following exception.

The

The exception arises from injuries received, by whatever sudden means whether they are the consequence of wounds from sharp instruments or contusion.

Should the liver be wounded, the Hepatitis will be evident from a pain of the right hypochondrium, frequently attended with vomiting.

The Splenitis is known by the affection being in the left hypochondrium.

A real Nephritis as they call it, is known by a pain in the kidneys, attended with vomiting and stupor of the leg.

A Cystitis by a swelling and pain in the region of the bladder.

A flux of blood attended with inflammation, such as happens in the hysteritis, from violent labour, in abortion, or in the wound of any interior part, is easily discerned by the pain of the part affected, and by the accident preceding.

HYSTERITIS.

THE Hysteritis is attended with a burning pain, and tension of the hypogastrium together with vomiting.

The noxious powers exciting the hysteritis all amount to violence offered the uterus, thus at the time of birth improper means being used, the delivery forced by ignorance, or by a premature extraction, very often the continuity of the uterus is destroyed.

And as often a great deal of blood is thus lost, and a weakness of the whole body follows the local affection, therefore, not as is usually done, is blood to be taken artificially, and purging used, but all kinds of it must be avoided, and proper food given the woman, but first the part affected must be attended to, the body must be placed in a horizontal position, and rest obtained, rich broths and wine must be given, solid animal food is to be eaten by bits, but often,
and

and the vulva is to be washed with cold water. And if by chance, the *debility* becomes greater, recourse must be had to wine in larger quantity, and drink stronger than this, with opiates are to be used. The use of which is not to be neglected, not even during the commencement of the disease.

ABORTION.

IN Abortion, the back, the loins, and the belly, like women in labour, are pained, the menstrua are universally discharged, and blood inordinately flows from the vagina.

The exciting powers are immoderate exercise, falls, false steps, great exertion in running, going up heights or down: Nevertheless the disease seldom happens except to people indisposed before hand, it is often the consequence of some weakness
left

left after a former abortion which mostly increases in proportion to their number.

The mode of prevention is to guard against all the exciting noxious powers, if walking be too fatiguing, it is proper to ride on horse back or in a carriage, from the third month of pregnancy till the seventh is over, to strengthen the body and to inculcate the greatest tranquillity of mind.

The intention of cure is to preserve a horizontal position with the hips raised higher than the head, to study rest, both of body and mind, to repair the loss of blood, with broths and wine, and to strengthen the vessels particularly with opiates, that their pores may be the more contracted, and thus to remove atony and laxity, which are the chief causes of the profluvia.

DIFFICULT LABOUR.

IN Difficult Labour, which for the most part arises from weakness, and always if it continues long, increases the *debility*, the woman is to be kept up with wine and opium, in proportion to the weakness.

When any part of the womb is injured by the above mentioned noxious powers, and the foetus is brought forth along with the placenta, the woman must be placed in bed as in an abortion, she must be strengthened with broths, flesh of tender fowl, wine and the higher stimuli, the contraries must be avoided, and the healing of the wound may in time be expected.

CONCERNING *Deeper* WOUNDS.

WHERE an extraneous body as a bullet, if that be the cause is taken out, or even if it remains within a place
not

not mortal, first the whole body is highly irritated, is warm, pained and tossed about, the pulses are strong, full, and more frequent than in health, which arise from this cause, that the local stimulus either of the bullet, or of the inflammation succeeding the wound, continually irritating the seat of sensibility affects the whole system.

In this case, because a Phlogistic Diathesis on account of the irritation of the wound is commonly supposed to arise all over the body, consequently the antiphlogistic method of cure is always used thro' the course of the disease, and the use of opium, which is conjoined with the Antiphlogistic remedies is taken only to allay and obtund the pain, and consequently thro' fear of *Fevers*, a great deal of blood is discharged by art, the belly purged, aliment denied, abstinence inculcated, whence death oftener proceeds than health.

All this reasoning is false, as is demonstrated by the principles of this doctrine,

and

and by the bad success attending this method of cure. In a person who has lost much blood, a redundancy of it cannot be the cause of a sthenic Diathesis. Neither can any more probable account be given why the serous fluids should be taken away, or that new ones should not be produced by nourishing diet. A quickness of the pulse, is a foolish argument, to prove an abundance of blood and too great vigour, or if any irritation, that it might require an Antisthenic cure; for unless at the same time that the pulse is hard, it is full and strong, the quickness depends on *debility* and a scarcity of blood, as we have often before demonstrated. Since, in fine, the sthenic Diathesis depends on the common sthenic noxious powers; since the violence of the pain, from a local affection, and particularly from an inflammation, does not tend to increase this Diathesis, but debilitate. (see page 222 Vol. II.) This is another reason, why the habit should be thought to remain either the same as it was before

the wound, or to degenerate into an asthenic one. Lastly, the true explication of the difference between an irritation and a sthenic Diathesis, is a confirmation of the same thing. Since the sthenic Diathesis is that state of the body, which is caused by all the stimulants in common, and the fullness of the vessels, which, have the same effect, and which is cured by *debilitants* in general, and attenuating remedies. On the contrary, irritation is that, in which, for want of proper stimulants the whole system is weakened; often a local stimulus, such as a distention exciting spasm, or a mere acid causing convulsion or the pain of a wound, bringing on this general commotion, causes enormous motion in a weak system; but, whether the *debility* be void of a stimulus, or excited by it, there is never need of *debilitants* and attenuating remedies, but often of moderate stimulants; and the only thing to be taken care of, is, lest the method of treatment should cause a sthenic Diathesis, and thus an *Idiopathic* disorder would be joined

joined to a local one, which would certainly be exasperated by it. As therefore under the apprehension of approaching *Fever*, and to allay the disturbance arising from thence, the Antisthenic cure is not to be applied, which on the contrary serves to increase the *Fever* and stir up that disturbance; so neither is the stimulant method to be tried, unless the wound be already closed, or the disorder is great, and a deal of *debility* is already come on from the continuance of the pain, lest the blood be hurried more rapidly than the case will bear, and with a more increased motion thro' the vessels. For neither Diathesis is understood to be present, and only a commotion of the system depending on a local affection, consequently there is no need of either remedies. During the first days of this disorder, because the patient undergoes no longer any gestation or exercise, or the other operations of the body or mind, as he usually does, consequently less food and support is required, therefore something

must be so subtracted from the ordinary stimuli, as whatever is applied, may correspond to the present condition of the patient, and with the state of the wound just now mentioned (page 230 Vol. II.) Therefore least the impetus in the vessels should be too great, the patient must be kept quiet, put in an easy position and cautiously moved, and make urine without being raised. For food, broths are rather to be taken than solid flesh meat, the wound must be often examined and light, and bland dressings made use of. And if, during the time of the dressing, the spirits should sink, cordials are to be administered. After some days, more or less, according to the strength of the patient, should the habit run on to *debility*, through the magnitude or continuance of the pain, besides the broths allowed of before, flesh meat, as rich and tender as possible must be given, and wine often, but sparingly, recourse must also be had to opium, which is usually given at the beginning, and to other more diffusible stimuli

stimuli if there be any such, and the disease is to be treated in the same manner as the Typhus. When any tender parts are injured by any rude matter, such as a thorn driven under the nail (page 222 Vol. II.) and an inflammation is seemingly diffused through the system from the part injured then on account of the part affected, the whole body is drawn into consent, the injured part is to be bathed with warm water, and covered with lint and soft and gentle ointment; and while the disease seems to spread, the person must also be kept quiet, and nothing further will generally be found necessary.

Suppuration, Pustula, Anthrax, Bubo, Gangrene, and Sphacelus, are all the result of general diseases, degenerating into local ones; the method of treating each of which, is evident from the doctrine already delivered.



ERRATA. Vol. I.

TYPOGRAPHICA GRAVIORA.

P. 15. l. 9. for *on* read *an*. P. 11. for *fold* read *solid*.
P. 18. l. 11. for *affect* read *effect*. P. 51. l. 6. for *every*
read *every*. P. 77. l. 18. for *indirect* read *direct*. P. 82.
l. 8. after *higher* read *or lower*. l. 15. dele *or a clammy*
sweat. l. 19. after *latter* read *it takes place*. P. 94. l. 4.
dele *the*. P. 103. l. 8. for *eleminated* read *eliminated*. P.
136. last l. for *indication* read *operation*. P. 138. l. 3.
after *disease* read *can be thus accounted for*. P. 143. l.
14. for *these* read *this*. P. 155. l. 10. for *is* read *are*.
P. 163 l. 18. dele *in*. P. 172. l. 11. after *yourself* read
it. P. 179. l. 3. after *which* read *it*. Join the lower
break in reading. P. 181. last l. after *condemn* read *is*.
P. 190. l. 3. &c, dele *in fine*.



ERRATA. Vol. II.

P. 30. l. 14. for *the* read *proper*. P. 35. l. 5. for *of*
read *to*. P. 57. l. 2. for *with* read *of*. P. 69. l. 10. for
excites read *exerts*. P. 70. l. 4. after *whatsoever* read
case. l. 5. for *offended* read *injured*. l. 8. for *some* read
same. P. 74. l. 15. dele *tho'*. P. 85. l. 17. &c for *mistake*
read *mistake*. P. 86. l. 6. after *wanting* read *here*. P.
87. l. 21. for *a* read *an*. P. 91. l. 20. after *either* read
of. P. 92. l. 4. for *emerging* read *arising*. P. 93. l. 9.
for *corrobrates* read *corroborates*. P. 94. l. 23. after *thus*
read *in*. P. 95. dele *while*. P. 9. l. 18. dele *and*.
l. 20. dele *which*. P. 99. for *phrenetica* read *phrenitica*.
P. 102. l. 4. dele *or*. l. 5. add *s* to *take*. P. 109. l.
15. for *as* read *is*. l. 16. after *be* add *so*. P. 114. l. 3.
dele *ing* add *s*. l. 13. for *possesses* read *possess*. P. 117.
l. 3. for *burtful* read *hereafter*. P. 118. l. 17. for *that*
read

ERRATA. Vol. II.

read *or*. P. 119. l. 6, for *turned* read *tumid*. l. 13, for *expressed* read *exposed*. l. 16. in *admits* dele s. P. 120. l. 10. for *sometime* read *sometimes*. l. 18. for *generally* read *general*. P. 122. l. 2. after *doubt* read *Of*. l. 4. after *self* dele . for *from* read *Form*. l. 13. for *affect* read *effect*. P. 124. l. 14. after *powers*, read *are*. P. 132. l. 5. after *constitute* read *it*. l. 15. after *afterwards* dele . for *What* read *which*. P. 153. l. 5. after *number* dele *except*, &c. l. 16. for *particularly* read *especially*. P. 135. l. 3. add *b* before *as*. P. 137. l. 10. for *these* read *there*. P. 138. l. 5. after *that*, read *that*. P. 142. l. 14. for *evils* read *diseases*. l. 16. to *part* add s. l. 18. after *as for it* read *truth*. l. 19. after *invariable* dele . add, &c. P. 146. l. 2. for *sum* read *same*. P. 147. dele *last* . add *it is evident*. P. 154. l. 5. dele *of*. P. 166. l. 1. after *the* add *other*. P. 171. l. 20, for *We must*. read *Must we* P. 185. l. 3. for *latter* read *former*. P. 188. l. 7. for *hardy* read *tardy*. P. 189. l. 10. for *diminished* read *weakened*. P. 196. l. 24. for *excited* read *excites*. P. 197. transpose from 16th to 21st. l.* P. 203. after *just* add *as*. l. 21. &c. dele *particularly in his head*, after *disease*, read *particularly*. P. 204. l. 17. for *disease* read *same*. l. 20. dele *are*. P. 205. l. 23. after *therefore* add *ought* P. 209. l. 8. for *startling* read *twitching*. P. 212. after *proof* dele , add . &c.

* Or understand, that extricated air, fordes or hard
fæces, are the offending matters.

